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DATE: Wednesday, June 29, 2005

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	DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L10	L2	0
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L9	L8 and Ns3	14
☐	L8	L6	22
	DB=DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L7	L6	0
	DB=PGPB,USPT,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L6	ELISA and L1	48
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L5	L4 and core	27
☐	L4	L3 and NS	39
☐	L3	L2 and solid	44
☐	L2	L1	45
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
☐	L1	HCV adj assay	92

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Search Results - Record(s) 1 through 10 of 27 returned.

☐ 1. Document ID: US 6855809 B2

L5: Entry 1 of 27 File: USPT Feb 15, 2005

US-PAT-NO: 6855809
DOCUMENT-IDENTIFIER: US 6855809 B2

TITLE: Methods for the simultaneous detection of HCV antigens and HCV antibodies

DATE-ISSUED: February 15, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shah; Dinesh O.	Libertyville	IL		
Dawson; George J.	Libertyville	IL		
Muerhoff; A. Scott	Kenosha	WI		
Jiang; Lily	Mundelein	IL		
Gutierrez; Robin A.	Gurnee	IL		
Leary; Thomas P.	Kenosha	WI		
Desai; Suresh	Libertyville	IL		
Stewart; James L.	Libertyville	IL		

US-CL-CURRENT: 530/350; 424/184.1, 424/189.1, 424/192.1, 424/204.1, 435/320.1, 435/325, 435/69.1, 435/7.1, 435/7.92, 536/23.4, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 2. Document ID: US 6797809 B2

L5: Entry 2 of 27 File: USPT Sep 28, 2004

US-PAT-NO: 6797809
DOCUMENT-IDENTIFIER: US 6797809 B2

TITLE: Multiple fusion antigens for use in immunoassays for anti-HCV antibodies

DATE-ISSUED: September 28, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Alamo	CA		
Arcangel; Phillip	Oakland	CA		
Tandeske; Laura	San Leandro	CA		
George-Nascimento; Carlos	Walnut Creek	CA		
Coit; Doris	Petaluma	CA		

Medina-Selby; Angelica San Francisco CA

US-CL-CURRENT: 530/350; 424/189.1, 424/202.1, 424/228.1, 436/518, 530/300

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 3. Document ID: US 6727092 B2

L5: Entry 3 of 27 File: USPT Apr 27, 2004

US-PAT-NO: 6727092
DOCUMENT-IDENTIFIER: US 6727092 B2

TITLE: Methods for the simultaneous detection of HCV antigens and HCV antibodies

DATE-ISSUED: April 27, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shah; Dinesh	Libertyville	IL		
Dawson; George	Libertyville	IL		
Muerhoff; A. Scott	Kenosha	WI		
Leary; Thomas P.	Kenosha	WI		
Guetierrez; Robin A.	Gurnee	IL		
Jiang; Lily	Mundelein	IL		
Desai; Suresh	Libertyville	IL		
Stewart; James L.	Libertyville	IL		

US-CL-CURRENT: 435/320.1; 435/252.3, 435/252.33, 530/350, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 4. Document ID: US 6723502 B2

L5: Entry 4 of 27 File: USPT Apr 20, 2004

US-PAT-NO: 6723502
DOCUMENT-IDENTIFIER: US 6723502 B2

TITLE: Hepatitis C antigen--antibody combination assay for the early detection of infection

DATE-ISSUED: April 20, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bahl; Chander	Flemington	NJ	08822	
Niven; Patrick	Denville	NJ	07834	
Samson; Antonio	Livingston	NJ	07039	
Madjor; Denise	Yardville	NJ	08620	

US-CL-CURRENT: 435/5; 436/518

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 5. Document ID: US 6692908 B1

L5: Entry 5 of 27 File: USPT Feb 17, 2004

US-PAT-NO: 6692908
DOCUMENT-IDENTIFIER: US 6692908 B1
**** See image for Certificate of Correction ****

TITLE: Prevention and treatment of HCV infection employing antibodies that inhibit the interaction of HCV virions with their receptor

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Foung; Steven K. H.	Stanford	CA		
Hadlock; Kenneth G.	San Francisco	CA		

US-CL-CURRENT: 435/5; 435/339, 530/388.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 6. Document ID: US 6632601 B2

L5: Entry 6 of 27 File: USPT Oct 14, 2003

US-PAT-NO: 6632601
DOCUMENT-IDENTIFIER: US 6632601 B2

TITLE: Immunoassays for anti-HCV antibodies

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Alamo	CA		
Arcangel; Phillip	Oakland	CA		
Tandeske; Laura	San Leandro	CA		
George-Nascimento; Carlos	Walnut Creek	CA		
Coit; Doris	Petaluma	CA		
Medina-Selby; Angelica	San Francisco	CA		

US-CL-CURRENT: 435/5; 435/23, 436/518

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 7. Document ID: US 6630298 B2

L5: Entry 7 of 27 File: USPT Oct 7, 2003

US-PAT-NO: 6630298
DOCUMENT-IDENTIFIER: US 6630298 B2

TITLE: HCV antigen/antibody combination assay

DATE-ISSUED: October 7, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Alamo	CA		
Arcangel; Phillip	Oakland	CA		
Tandeske; Laura	San Leandro	CA		
George-Nascimento; Carlos	Walnut Creek	CA		
Coit; Doris	Petaluma	CA		
Medina-Selby; Angelica	San Francisco	CA		

US-CL-CURRENT: 435/5; 435/23, 436/518

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 8. Document ID: US 6596476 B1

L5: Entry 8 of 27 File: USPT Jul 22, 2003

US-PAT-NO: 6596476
DOCUMENT-IDENTIFIER: US 6596476 B1

TITLE: Hepatitis C assay

DATE-ISSUED: July 22, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lesniewski; Richard R.	Kenosha	WI		
Leung; Tat K.	Waukegan	IL		

US-CL-CURRENT: 435/5; 436/518, 436/820

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 9. Document ID: US 6593083 B1

L5: Entry 9 of 27 File: USPT Jul 15, 2003

US-PAT-NO: 6593083
DOCUMENT-IDENTIFIER: US 6593083 B1

TITLE: Hepatitis C assay utilizing recombinant antigens

DATE-ISSUED: July 15, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Devare; Sushil G.	Northbrook	IL	60062	
Desai; Suresh M.	Libertyville	IL	60048	
Casey; James M.	Zion	IL	60099	
Dailey; Stephen H.	Vernon Hills	IL	60061	
Dawson; George J.	Libertyville	IL	60048	
Gutierrez; Robin A.	Gumee	IL	60031	
Lesniewski; Richard R.	Kenosha	WI	53142	
Stewart; James L.	Gumee	IL	60031	
Rupprecht; Kevin R.	Grayslake	IL	60030	

US-CL-CURRENT: 435/5; 435/69.1, 435/7.1, 435/71.3, 436/536

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 10. Document ID: US 6537745 B2

L5: Entry 10 of 27 File: USPT Mar 25, 2003

US-PAT-NO: 6537745
DOCUMENT-IDENTIFIER: US 6537745 B2

TITLE: Buffers for stabilizing antigens

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Emeryville	CA		
Arcangel; Phillip	Emeryville	CA		
Tirell; Stephen	Emeryville	CA		
Zeigler; Wanda	Emeryville	CA		

US-CL-CURRENT: 435/5; 436/176, 436/18

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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Terms	Documents
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Robey; William G.	Libertyville	IL
Braun; Brian P.	Gurnee	IL
Daluga; Cynthia K.	Lindenhurst	IL
Kapsalis; Andreas A.	Evanston	IL
Knigge; Kevin M.	Gurnee	IL
Stephens; John E.	Chicago	IL
Stojak, II; Joseph J.	Waukegan	IL
Vallaris; David S.	Grayslake	IL
Durley, deceased; Benton A.	late of Antioch	IL
Defreese; James D.	Lindenhurst	IL
Merkh; Carl W.	Lindenhurst	IL

US-CL-CURRENT: 436/530; 435/287.2, 435/287.9, 435/7.91, 435/7.92, 435/7.93, 435/7.94, 435/7.95, 436/501, 436/808, 436/809

Terms	Documents
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Search Results - Record(s) 11 through 20 of 27 returned.

☐ 11. Document ID: US 6514731 B1

L5: Entry 11 of 27 File: USPT Feb 4, 2003

US-PAT-NO: 6514731
DOCUMENT-IDENTIFIER: US 6514731 B1

TITLE: Methods for the preparation of hepatitis C virus multiple copy epitope fusion antigens

DATE-ISSUED: February 4, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Valenzuela; Pablo D. T.	Berkeley	CA		
Chien; David Ying	Alamo	CA		

US-CL-CURRENT: 435/69.7; 424/189.1, 424/228.1, 435/5, 435/7.1, 530/300, 530/350, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 12. Document ID: US 6428792 B1

L5: Entry 12 of 27 File: USPT Aug 6, 2002

US-PAT-NO: 6428792
DOCUMENT-IDENTIFIER: US 6428792 B1
**** See image for Certificate of Correction ****

TITLE: Hepatitis C virus multiple copy epitope fusion antigens

DATE-ISSUED: August 6, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Valenzuela; Pablo D. T.	Berkeley	CA		
Chien; David Ying	Alamo	CA		

US-CL-CURRENT: 424/228.1; 424/189.1, 424/192.1, 435/5, 435/69.1, 435/69.7, 530/300, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 13. Document ID: US 6391540 B1

L5: Entry 13 of 27 File: USPT May 21, 2002

US-PAT-NO: 6391540
DOCUMENT-IDENTIFIER: US 6391540 B1

TITLE: Method for detecting antibodies in a sample

DATE-ISSUED: May 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Emeryville	CA		
Arcangel; Phillip	Emeryville	CA		
Tirell; Stephen	Emeryville	CA		
Zeigler; Wanda	Emeryville	CA		

US-CL-CURRENT: 435/5; 435/7.94, 435/7.95, 436/518, 436/820

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 14. Document ID: US 6322965 B1

L5: Entry 14 of 27 File: USPT Nov 27, 2001

US-PAT-NO: 6322965
DOCUMENT-IDENTIFIER: US 6322965 B1

TITLE: Chimera antigen peptide

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Yamaguchi; Kenjiro	Saitama			JP
Kashiwakuma; Tomiko	Saitama			JP
Chiba; Yukie	Saitama			JP
Yagi; Shintaro	Saitama			JP
Hasegawa; Akira	Saitama			JP

US-CL-CURRENT: 435/5; 435/440, 435/455, 435/471, 435/69.1, 435/69.3, 435/69.7, 435/7.1, 436/501, 436/536, 436/811, 436/820, 530/350, 530/806, 530/826, 536/23.1, 536/23.4, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 15. Document ID: US 6261764 B1

L5: Entry 15 of 27 File: USPT Jul 17, 2001

US-PAT-NO: 6261764
DOCUMENT-IDENTIFIER: US 6261764 B1

TITLE: Buffers for stabilizing antigens

DATE-ISSUED: July 17, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chien; David Y.	Alamo	CA		
Arcangel; Phillip	Berkeley	CA		
Tirell; Stephen	Franklin	MA		
Zeigler; Wanda	Medway	MA		

US-CL-CURRENT: 435/5; 436/176, 436/18

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 16. Document ID: US 6172189 B1

L5: Entry 16 of 27 File: USPT Jan 9, 2001

US-PAT-NO: 6172189
DOCUMENT-IDENTIFIER: US 6172189 B1

TITLE: Hepatitis C assay utilizing recombinant antigens

DATE-ISSUED: January 9, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Devare; Sushil G.	Northbrook	IL		
Desai; Suresh M.	Libertyville	IL		
Casey; James M.	Zion	IL		
Dailey; Stephen H.	Vernon Hills	IL		
Dawson; George J.	Libertyville	IL		
Gutierrez; Robin A.	Gurnee	IL		
Lesniewski; Richard R.	Kenosha	WI		
Stewart; James L.	Gurnee	IL		
Rupprecht; Kevin R.	Grayslake	IL		

US-CL-CURRENT: 530/350; 424/228.1, 435/5, 435/69.3, 435/7.1, 530/300, 530/326, 530/327

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 17. Document ID: US 6153378 A

L5: Entry 17 of 27 File: USPT Nov 28, 2000

US-PAT-NO: 6153378
DOCUMENT-IDENTIFIER: US 6153378 A

TITLE: Diagnosis of, and vaccination against, a positive stranded RNA virus using an isolated, unprocessed polypeptide encoded by a substantially complete genome of such virus

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Liao; Jaw-Ching	Taipei			TW
Wang; Cheng-Nan	Taipei			TW

US-CL-CURRENT: 435/5; 424/189.1, 424/192.1, 424/204.1, 435/471, 435/69.3, 435/7.1, 435/810, 435/948

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 18. Document ID: US 6020122 A

L5: Entry 18 of 27 File: USPT Feb 1, 2000

US-PAT-NO: 6020122
DOCUMENT-IDENTIFIER: US 6020122 A

TITLE: Hepatitis C virus second envelope (HCV-E2) glycoprotein expression system

DATE-ISSUED: February 1, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Okasinski; Gregory F.	Wadsworth	IL		
Schaefer; Verlyn G.	Libertyville	IL		
Suhar; Thomas S.	Lindenhurst	IL		
Lesniewski; Richard R.	Kenosha	WI		

US-CL-CURRENT: 435/5; 424/189.1, 424/228.1, 435/69.1, 435/71.1, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 19. Document ID: US 5863719 A

L5: Entry 19 of 27 File: USPT Jan 26, 1999

US-PAT-NO: 5863719
DOCUMENT-IDENTIFIER: US 5863719 A

TITLE: Methods for detecting hepatitis C virus using polynucleotides specific for same

DATE-ISSUED: January 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Houghton; Michael	Danville	CA		
Choo; Qui-Lim	El Cerrito	CA		
Kuo; George	San Francisco	CA		

US-CL-CURRENT: 435/5; 435/6, 435/91.1, 435/91.2, 536/23.72, 536/24.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 20. Document ID: US 5763159 A

L5: Entry 20 of 27 File: USPT Jun 9, 1998

US-PAT-NO: 5763159
DOCUMENT-IDENTIFIER: US 5763159 A
**** See image for Certificate of Correction ****

TITLE: Hepatitis-C virus testing

DATE-ISSUED: June 9, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Simmonds; Peter	Edinburgh			GB
Chan; Shui-Wan	Cambridge			GB
Yap; Peng Lee	Edinburgh			GB

US-CL-CURRENT: 435/5; 436/518, 436/820, 530/326, 536/23.72

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 21. Document ID: US 5736321 A

L5: Entry 21 of 27 File: USPT Apr 7, 1998

US-PAT-NO: 5736321
DOCUMENT-IDENTIFIER: US 5736321 A

TITLE: Peptides effective for diagnosis and detection of hepatitis C infection

DATE-ISSUED: April 7, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hosein; Barbara Helen	New York	NY		
Wang; Chang Yi	Cold Spring Harbor	NY		

US-CL-CURRENT: 435/5; 436/820, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 22. Document ID: US 5716779 A

L5: Entry 22 of 27 File: USPT Feb 10, 1998

US-PAT-NO: 5716779
DOCUMENT-IDENTIFIER: US 5716779 A
** See image for Certificate of Correction **

TITLE: Diagnostic antigen and a method of in vitro diagnosing an active infection caused by hepatitis C virus

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sallberg; Matti	Alvsjo			SE
Trojnar; Jerzy	Vintrie			SE

US-CL-CURRENT: 435/5; 530/325

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

☐ 23. Document ID: US 5714596 A

L5: Entry 23 of 27 File: USPT Feb 3, 1998

US-PAT-NO: 5714596
DOCUMENT-IDENTIFIER: US 5714596 A

TITLE: NANBV diagnostics: polynucleotides useful for screening for hepatitis C virus

DATE-ISSUED: February 3, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Houghton; Michael	Danville	CA		
Choo; Qui-Lim	El Cerrito	CA		
Kuo; George	San Francisco	CA		
Weiner; Amy J.	Oakland	CA		
Han; Jang	Lafayette	CA		
Urdea; Michael Steven	Alamo	CA		
Irvine; Bruce Duncan	Concord	CA		
Kolberg; Janice A.	Richmond	CA		

US-CL-CURRENT: 536/23.72; 435/5, 435/6, 435/91.1, 435/91.33, 436/94, 536/23.1, 536/24.3, 536/25.3, 536/25.32

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 24. Document ID: US 5712088 A

L5: Entry 24 of 27 File: USPT Jan 27, 1998

US-PAT-NO: 5712088
DOCUMENT-IDENTIFIER: US 5712088 A

TITLE: Methods for detecting Hepatitis C virus using polynucleotides specific for same

DATE-ISSUED: January 27, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Houghton; Michael	Danville	CA		
Choo; Qui-Lim	El Cerrito	CA		
Kuo; George	San Francisco	CA		
Weiner; Amy J.	Oakland	CA		
Han; Jang	Lafayette	CA		
Urdea; Michael Steven	Alamo	CA		
Irvine; Bruce Duncan	Concord	CA		
Kolberg; Janice A.	Richmond	CA		

US-CL-CURRENT: 435/5; 435/6, 435/91.1, 435/91.2, 435/91.32, 536/23.1, 536/24.32, 536/24.33, 536/25.3

Full | Title | Citation | Front | Review | Classification | Date | Reference | | | Claims | KWIC | Draw Desc | Ima

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☐ 25. Document ID: US 5705330 A

L5: Entry 25 of 27 File: USPT Jan 6, 1998

US-PAT-NO: 5705330
DOCUMENT-IDENTIFIER: US 5705330 A

TITLE: Chemiluminescent immunoassay for antibody detection

DATE-ISSUED: January 6, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shah; Dinesh O.	Libertyville	IL		
Richerson; Russell B.	Barrington	IL		

US-CL-CURRENT: 435/5; 435/7.92, 435/975, 436/172, 436/518, 436/805, 436/808

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 26. Document ID: US 5574132 A

L5: Entry 26 of 27 File: USPT Nov 12, 1996

US-PAT-NO: 5574132
DOCUMENT-IDENTIFIER: US 5574132 A

TITLE: Peptides and mixtures thereof for detecting antibodies to hepatitis C virus (HCV)

DATE-ISSUED: November 12, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lacroix; Martial	Brossard			CA

US-CL-CURRENT: 530/323; 530/324, 530/325, 530/326, 530/327, 530/332, 930/220, 930/30

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Ima

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☐ 27. Document ID: US 5120662 A

L5: Entry 27 of 27 File: USPT Jun 9, 1992

US-PAT-NO: 5120662
DOCUMENT-IDENTIFIER: US 5120662 A

TITLE: Multilayer solid phase immunoassay support and method of use

DATE-ISSUED: June 9, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chan; Emerson W.	Libertyville	IL		
Schulze; Werner	Waukegan	IL		

Limits: **Publication Date to 1996/05/07**

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#10	Search **"Sato A"[Author]** Limits: **Publication Date to 1996/05/07**	12:32:21	1052
#6	Search **HCV diagnosis and ELISA and NS3 and core** Limits: **Publication Date to 1996/05/07**	12:28:11	14
#5	Search **HCV diagnosis and ELISA** Limits: **Publication Date to 1996/05/07**	12:27:52	718
#4	Search **HCV diagnosis** Field: **All Fields,** Limits: **Publication Date to 1996/05/07**	12:27:39	2152
#3	**Related Articles** for **PubMed** (Select **10455446**)	08:05:24	94
#1	Search **Cornetta K 1999**	08:03:18	6

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1: Vox Sang. 1995;68(1):15-8.

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Improved detection of anti-HCV in post-transfusion hepatitis by a third-generation ELISA.

Barrera JM, Francis B, Ercilla G, Nelles M, Achord D, Darner J, Lee SR.

Hospital Clinic I Provincial de Barcelona, Spain.

The sensitivity of ORTHO HCV 3.0 ELISA Test System (ELISA 3) for the detection of anti-HCV was compared with the second-generation ELISA, OR-THO HCV 2.0 ELISA Test System (ELISA 2). ELISA 3 differs from ELISA 2 in that it incorporates the HCV recombinant antigen NS5, in addition to recombinant antigens derived from the NS3, NS4 and core regions of the HCV genome. Specimens tested consisted of serial bleeds obtained from 21 individuals undergoing seroconversion following acquisition of post-transfusion HCV infection. ELISA 3 demonstrated significantly greater sensitivity than ELISA 2, detecting seroconversion earlier in 24% (5/21) of cases. Although one of these cases appeared to represent early seroconversion to NS5, most of the improved sensitivity of ELISA 3 appeared to derive from increased detectability of anti-c33c.

PMID: 7536987 [PubMed - indexed for MEDLINE]

Limits: **Publication Date to 1996/05/07**

1: J Pediatr. 1993 Sep;123(3):381-7.

Hepatitis C virus infection in children with hemophilia: characterization of antibody response to four different antigens and relationship of antibody response, viremia, and hepatic dysfunction.

Kanesaki T, Kinoshita S, Tsujino G, Yoshioka K, Ikegami N.

Department of Pediatrics, Osaka National Hospital, Japan.

We studied hepatitis C virus (HCV) infection in children with hemophilia by characterizing the antibody responses to four different HCV antigens and investigating the relationship of the antibody response to viremia and hepatic dysfunction. Three antigens (core, nonstructural (NS) 3, and NS5) were expressed in Escherichia coli transfected with plasmids that contained fragments of the putative core and of the NS3 and NS5 regions of the HCV genome, respectively. Antibody responses to these three antigens and the commercially available C100 antigen were detected by enzyme-linked immunosorbent assay. In 45 children with hemophilia, the percentage of children with seropositivity for C100, core, NS3, and NS5 protein in one or more specimens was 82%, 91%, 91%, and 89%, respectively. The time course of changes in the antibody response to the four antigens was determined by using sera obtained from 44 of the 45 patients at intervals of 1 to 4 years. Antibodies to the core and NS3 antigens appeared earlier and persisted longer than those to C100 and NS5 after HCV infection. The relationship of antibody response to viremia and hepatic dysfunction was investigated in 27 children by using the polymerase chain reaction assay. Five children whose tests results were negative for all four antigens did not have viremia or hepatic dysfunction; 13 of the 16 children with positive results for the four antigens had both viremia and hepatic dysfunction. Five of the six children whose serum had the core and NS3 antibodies but not either C100 or NS5, or both, had viremia, and three of them also had hepatic dysfunction. These results suggest that detection of antibodies to the core and NS3 antigens is useful for the serologic diagnosis of HCV infection and that both antibodies are more related to viremia than are the antibodies to C100 and NS5. In addition, viremia is strongly associated with hepatic dysfunction.

PMID: 7689096 [PubMed - indexed for MEDLINE]

1: Scand J Gastroenterol. 1991 Dec;26(12):1257-62.

Antibodies to recombinant and synthetic peptides derived from the hepatitis C virus genome in long-term-studied patients with posttransfusion hepatitis C.

Mattsson L, Gutierrez RA, Dawson GJ, Lesniewski RR, Mushahwar LK, Weiland O.

Dept. of Infectious Diseases, Karolinska Institute, Roslagstull Hospital, Stockholm, Sweden.

Eight of 13 Swedish patients (62%), studied prospectively, who developed posttransfusion non-A, non-B hepatitis (PT-NANBH) had earlier been found to seroconvert for antibodies to hepatitis C virus (anti-HCV) c100-3 in the first-generation anti-HCV enzyme-linked immunosorbent assay 1-18 (mean, 8) weeks after onset of hepatitis. By using a second-generation test utilizing antigens encoded by the core NS3 and NS4 region of HCV, a further four patients non-reactive to c100-3 (NS4) were found to seroconvert. Thus 12 of 13 (92%) Swedish patients with PT-NANBH were shown to have HCV infection. In addition, the serologic reactivity for several individual synthetic peptides and/or recombinant HCV proteins was studied in seven anti-HCV c100-3 seroconverts studied long-term after onset of acute PT-HCV infection. No special patterns were found that could differentiate patients who recovered from those who developed chronic HCV infection. It was concluded that the addition of new recombinant antigens derived from the core and NS3 region to c100-3 (NS4) both improved the sensitivity of the anti-HCV test and shortened the window phase to seroconversion.

PMID: 1722348 [PubMed - indexed for MEDLINE]

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ClinicalTrials.gov
PubMed Central

1: Jpn J Cancer Res. 1992 Mar;83(3):264-8. Related Articles, Links

Serodiagnostic assay of hepatitis C virus infection using viral proteins expressed in Escherichia coli.

Mori S, Ohkoshi S, Hijikata M, Kato N, Shimotohno K.

Virology Division, National Cancer Center Research Institute, Tokyo.

Infection with hepatitis C virus (HCV) was analyzed by an enzyme-linked immunosorbent assay based on recombinant viral proteins encoded by regions of the putative viral core, NS3, NS4 and NS5, which were expressed in E. coli. Results showed that 106 of 124 cases (85.5%) of non-A, non-B chronic hepatitis and 43 of 45 cases (95.5%) of hepatocellular carcinoma, negative for HBV marker, were positive for antibodies against at least one of these viral proteins. One of 87 healthy individuals with normal alanine aminotransferase activity was positive for antibody against only the viral core, but was negative for HCV RNA. The serum of one patient with chronic hepatitis was positive for one of these proteins, but negative for HCV RNA. These findings in combination with results on detection of HCV RNA in the sera of patients with non-A, non-B chronic hepatitis indicated that 105 of 124 cases (84.6%) were positive for HCV infection. Sera that were negative for HCV antibodies against all these proteins were also negative for HCV RNA assayed by reverse transcription followed by the polymerase chain reaction. Screening of HCV infection by detecting viral antibodies in circulating blood using all these viral proteins is useful for reducing the number of ambiguous results in screening for viral infection. Thus, this assay system may be useful diagnostic purposes.

PMID: 1316340 [PubMed - indexed for MEDLINE]

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Clinical Alerts
ClinicalTrials.gov
PubMed Central

1: J Med Virol. 1994 Sep;44(1):49-53. Related Articles, Links

Hepatitis C virus antibody prevalence among human immunodeficiency virus-1-infected individuals: analysis with different test systems.

Nubling CM, von Wangenheim G, Staszewski S, Lower J.

Paul-Ehrlich-Institut, Langen, Germany.

Sera of 383 human immunodeficiency virus (HIV)-1-infected individuals from Frankfurt (Main)/Germany were assayed by two hepatitis C virus (HCV) screening tests (Abbott second generation, Ortho second generation). This population showed a prevalence for reactivity with both tests of 20.8% (80/383). Examination of all reactive sera (91/383) by a supplemental assay (Chiron RIBA 2) gave for 46 sera a positive, for 33 sera an indeterminate, and for 12 sera a negative result. Further analysis focussed on these RIBA 2-indeterminate and -negative samples. Analysis of the sera using an in-house Western blot with three different Escherichia coli-expressed HCV proteins revealed that none of the RIBA 2-negative, but 24 of the 33 RIBA 2-indeterminate sera, including 3 of 4 c33c (NS3)-reactive samples, were reactive with a recombinant core protein. Twenty-one of 22 c22-3 (core) indeterminates stained the core antigen in the in-house Western blot and 3 of them in addition a NS5 moiety. HCV-polymerase chain reaction (PCR) was positive for 14 of the 24 RIBA 2-indeterminate sera, but for none of the RIBA 2-negative or Western blot nonreactive samples. Discrepant results between the two screening tests could not be explained by differences in the antigen compositions (i.e., a NS3-NS4 moiety of 111 amino acids present in the Ortho enzyme-linked immunosorbent assay (ELISA), not present in the Abbott or RIBA 2 assays).

PMID: 7798885 [PubMed - indexed for MEDLINE]

```
=> "solid phase"
L1      125518 "SOLID PHASE"

=> Immunoassay
L2      128306 IMMUNOASSAY

=> ELISA
L3      132860 ELISA

=> L1 and L2
L4        7941 L1 AND L2

=> L1 and l3
L5        4087 L1 AND L3

=> HCV (w) antigen
L6         451 HCV (W) ANTIGEN

=> conjugated
L7      122341 CONJUGATED

=> L6 and L7
L8          10 L6 AND L7

=> L6 and L4
L9          10 L6 AND L4

=> L6 and L5
L10          0 L6 AND L5

=> coated (s) antigen (w) particle
L11          8 COATED (S) ANTIGEN (W) PARTICLE

=> HCV and L11
L12          0 HCV AND L11

=> L1 and L6
L13         17 L1 AND L6

=> "polystyrene latex "
L14       4872 "POLYSTYRENE LATEX "

=> L14 and L6
L15          1 L14 AND L6

=> "copolymer latex"
L16       6182 "COPOLYMER LATEX"

=> L6 and L16
L17          0 L6 AND L16

=> erythrocyte and L6
L18          3 ERYTHROCYTE AND L6

=> gelatine (w) particle
L19          3 GELATINE (W) PARTICLE

=> L3 and L6
L20         79 L3 AND L6

=> L19 and L6
L21          0 L19 AND L6

=> L20 and HCV
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L22          79 L20 AND HCV

=> L22 and L16
L23           0 L22 AND L16

=> BSA and L22
L24           0 BSA AND L22

=> ovalbumin and L22
L25           0 OVALBUMIN AND L22

=> hemocyanin and l3
L26         951 HEMOCYANIN AND L3

=> L26 and L6
L27           0 L26 AND L6
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L18 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:326511 CAPLUS
DOCUMENT NUMBER: 125:8459
TITLE: Reagent for assaying antibody against reduced antigen of hepatitis C virus and method of assaying therewith
INVENTOR(S): Inoue, Yuzo; Takei, Toshinori; Tokita, Susumu
PATENT ASSIGNEE(S): Dainabot Co., Ltd., Japan
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606355	A1	19960229	WO 1995-JP1634	19950817
W: CA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 08062219	A2	19960308	JP 1994-216781	19940819

PRIORITY APPLN. INFO.: JP 1994-216781 19940819

AB A method of assaying an antibody which reacts immunol. with hepatitis C virus (HCV) antigen in a specimen, wherein an anti-reduced HCV antibody, especially an antibody against 33C antigen, is assayed more accurately with a high sensitivity. As the antigen, use is made of at least a protein antigen coded in the NS3 domain of the HCV genome or a peptide having the activity substantially equivalent to that of the above antigen, and the antigen has been so converted or preserved as to substantially hold the form of a reduced NS3-related antigen. Examples of the treatment for the conversion and preservation include preservation of the NS3-related antigen in a dried state or in an inert gas atmospheric or in the presence of a deoxygenating agent, modification of the thiol group with a reagent for protecting or modifying the same, modification of the cysteine residue by genetic recombination techniques, such as site-directed mutagenesis, to prepare a variant recombinant NS3-related antigen, preservation of the antigen in the presence of an antioxidant till just before the use thereof, treatment of the antigen with an enzyme capable of cleaving the disulfide bond (-S-S-) into thiol groups, and treatment of the antigen with a substance having a substrate affinity for the cysteine residue. In example, glutathion, dithiothreitol, and 2-mercaptoethanol were used to preserve HCV 33C or core or C100 antigen-sensitized human erythrocyte for detecting antibodies in blood serum of HCV infected patients.

```
=> "HCV diagnosis"
L1          49 "HCV DIAGNOSIS"

=> "HCV detection"
L2         129 "HCV DETECTION"

=> ELISA and L1
L3           6 ELISA AND L1

=> ELISA and L2
L4          16 ELISA AND L2

=> solid and L2
L5           4 SOLID AND L2

=> solid and L1
L6           0 SOLID AND L1

=> "synthistic antigen" and L1
L7           0 "SYNTHISTIC ANTIGEN" AND L1

=> synthetic (w) antigen and L2
L8           0 SYNTHETIC (W) ANTIGEN AND L2

=> carrier and l1
L9           1 CARRIER AND L1

=> carrier and L2
L10          2 CARRIER AND L2

=> D L10 IBIB ABS 1-2
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L18 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1994:293595 CAPLUS
DOCUMENT NUMBER: 120:293595
TITLE: Thio group-containing antigen or peptide treated with reducing agent for antibody determination
INVENTOR(S): Takei, Toshinori; Inoe, Juzo; Asahina, Aki; Tokita, Susumu
PATENT ASSIGNEE(S): Dainabot Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06074956	A2	19940318	JP 1992-270684	19920828
JP 3225468	B2	20011105		

PRIORITY APPLN. INFO.: JP 1992-270684 19920828

AB A reducing agent is used for preventing oxidation of (immobilized) thio group-containing antigen or peptide. The (immobilized) thio group-containing antigen or peptide is used as a test reagent for antibody determination In a sep. experiment, erythrocyte-immobilized hepatitis C virus (HCV) antigen was treated with DTT, 2-mercaptoethanol, or glutathione and used for determining antibody to HCV core antigen, NS3, or NS4 protein, resp.

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

current applicant

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221

PRIORITY APPLN. INFO.: JP 1996-112442 A 19960507
US 1997-850328 A1 19970502

P1

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing HCV infection. The HCV antigen is core antigen, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221

PRIORITY APPLN. INFO.: JP 1996-112442 A 19960507
US 1997-850328 A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing HCV infection. The HCV antigen is core antigen, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:5185 CAPLUS
DOCUMENT NUMBER: 116:5185
TITLE: Peptides and their use in detecting antibodies to hepatitis C virus (HCV)
INVENTOR(S): Arima, Terukatsu; Namba, Toshihiko; Tsuji, Masao
PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 63 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 445801	A2	19910911	EP 1991-103471	19910307
EP 445801	A3	19920701		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05262792	A2	19931012	JP 1991-68007	19910307
JP 3241057	B2	20011225		
JP 2002167395	A2	20020611	JP 2001-262321	19910307
JP 2003064098	A2	20030305	JP 2002-180856	19910307
US 5247067	A	19930921	US 1991-666719	19910308

PRIORITY APPLN. INFO.:

JP 1990-58700	A	19900308
JP 1990-67439	A	19900316
JP 1990-80100	A	19900327
JP 1990-296899	A	19901031
JP 1991-68007	A3	19910307
JP 2001-262321	A3	19910307

AB Peptides binding antibodies specific to HCV antigen are presented. These peptides are useful for anti-HCV antibody assays. Peptide Lys-Asp-Arg-Thr-Gln-Gln-Arg-Lys-Thr-Lys-Arg-Ser-Thr-Asn-Arg-Arg-Arg-Ser-Lys-Asn-Gly-Lys-Lys-Lys-Lys, prepared by solid-phase synthesis method, was used in an enzyme immunoassay of antibodies to HCV in blood serum samples.

L13 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:21470 CAPLUS
DOCUMENT NUMBER: 116:21470
TITLE: Synthetic peptide and reagent for analysis of HCV (hepatitis C virus) antibodies using the same
INVENTOR(S): Hayashi, Nakanobu; Hashimoto, Masakatsu
PATENT ASSIGNEE(S): Shima Kenkyusho Y. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03190898	A2	19910820	JP 1989-329746	19891221

PRIORITY APPLN. INFO.: JP 1989-329746 19891221

AB A peptide having the common antigen determinant with HCV virus, i.e. H-Ile-Ile-Pro-Asp-Arg-Glu-Val-Leu-Tyr-Arg-Glu-Phe-Asp-Glu-Met-Glu-Glu-Cys-Ser-Gln-His-Leu-Pro-Tyr-Ile-Glu-Gln-Gly-Met-Met-Leu-Ala-Glu-Gln-Phe-Lys-Gln-Lys-Ala-Leu-Gly-Leu-OH (I), is prepared by the solid phase method on Fmoc- or BOC-Leu-bound resin (Fmoc = 9H-fluoren-9-ylmethoxycarbonyl, BOC = Me3CO2C) using Fmoc-protected amino acids. A reagent for analyzing HCV antibodies by the latex agglutination turbidimetry or light scattering photometry comprises (A), a solid reagent (i.e. I immobilized through phys. absorption or chemical through spacers on a solid support such as a microtiter reaction plate, beads, a sheet, a porous membrane, or magnetic latex, more preferably (high-d.) latex particles, immobilized erythrocyte, gelatin particles, or immobilized bacteria) and (B) human globulin antibodies (e.g. human IgG or anti-human IgM) labeled with a radioisotope, enzyme, biotin, fluorescent dye, or Eu chelate or (C) a similarly labeled I. I of high purity can be prepared in large quantity at lower cost than the conventional HCV-derived antigen and is easily immobilized on the support and the immobilized I shows good reaction with the HCV antibodies of HCV patients with high sensitivity and specificity.

L13 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:214922 CAPLUS
DOCUMENT NUMBER: 116:214922
TITLE: Preparation of peptides and their use for determination of antibodies specific to hepatitis non-A/non-B virus-related antigens
INVENTOR(S): Arima, Terumasa; Yamada, Kiyoko; Hatanaka, Tadashi; Nanba, Toshihiko; Tsuji, Masao
PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03284696	A2	19911216	JP 1990-85566	19900329

PRIORITY APPLN. INFO.: JP 1990-85566 19900329

AB H-Glu-Gln-Asp-Gln-Ile-Lys-Thr-Lys-Asp-Arg-Thr-Gln-Gln-Arg-Lys-Thr-Lys-Arg-Ser-Thr-Asn-Arg-Arg-Arg-Ser-Lys-Asn-Glu-Lys-Lys-Lys-Lys-OH (I) or its peptide fragments having Lys-Arg-Ser-Thr-Asn (II) which specifically bind to antibodies against hepatitis non-A/non-B virus-related antigens (**HCV antigens**), are prepared as reagents for determination of anti-HCV antibodies with high sensitivity. Thus, I was prepared by the **solid phase** method on a BOC-Lys(Cl-Z)-bound resin (Cl-Z = f-ceC6H4CH2O2C) using a peptide synthesizer model 431A (Applied Biosystems, Inc.). An enzyme immunoassay using I and 2 other peptides having the fragment II identified 93.3-96.7% the presence of anti-HCV antibodies in 30 serum samples vs. 20% when peptides without the fragment II were used.

L13 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:640742 CAPLUS
DOCUMENT NUMBER: 130:50993
TITLE: Synthetic peptides as additional agents for detecting antibodies to hepatitis C virus
AUTHOR(S): Semiletov, Yu. A.; Firsova, T. V.; Kruglov, I. V.; Alekseenkova, T. I.; Petrakova, N. V.; Kalinina, T. I.; Shebnev, V. A.
CORPORATE SOURCE: Inst. Virusol. im. Ivanovskogo, RAMN, Moscow, Russia
SOURCE: Voprosy Virusologii (1998), 43(3), 107-109
CODEN: VVIRAT; ISSN: 0507-4088
PUBLISHER: Meditsina
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Peptide fragments of hepatitis C virus (HCV) nonstructural protein NS4 capable of reacting with anti-HCV in enzyme immunoassay were synthesized. Addition of synthetic peptides to recombinant nucleocapsid HCV antigen adsorbed on solid phase notably improved the efficacy of detection of antibodies to HCV in the sera of patients with hepatitis C.

L13 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:282632 CAPLUS
DOCUMENT NUMBER: 126:329228
TITLE: Human monoclonal recombinant Fabs specific for HCV antigens obtained by repertoire cloning in phage display combinatorial vectors
AUTHOR(S): Plaisant, P.; Burioni, R.; Manzin, A.; Solforosi, L.; Candela, M.; Gabrielli, A.; Fadda, G.; Clementi, M.
CORPORATE SOURCE: Instituto di Microbiologia, Facolta di Medicina, Universita Cattolica del Sacro Cuore, Rome, 00168, Italy
SOURCE: Research in Virology (1997), 148(2), 165-169
CODEN: RESVEY; ISSN: 0923-2516
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Mol. cloning of the antibody repertoire in phage display combinatorial vectors is a powerful method enabling the dissection of the immune response against a given pathogen. Here, the authors describe the construction of a combinatorial library displayed on phage surface, containing the antibody repertoire of a patient with high serol. response against hepatitis C virus (HCV) antigens. Following selection of the library against solid-phase-bound antigen, 16 human antibody Fab fragments able to bind to HCV-specific antigens were generated and studied for binding characteristics. The majority of them appeared to have specificity for the HCV c33 peptide. All the clones reacting with the c33 peptide shared the same heavy-chain CDR3 sequence. This is the first report of mol. cloning in a combinatorial phage display vector of the antibody repertoire of an anti-HCV-pos. patient.

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:447345 CAPLUS
DOCUMENT NUMBER: 119:47345
TITLE: Hepatitis C virus (HCV) assay and kit using HCV antigen epitope-containing polypeptides
INVENTOR(S): Lesniewski, Richard R.; Leung, Tat K.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9306247	A1	19930401	WO 1992-US7813	19920916
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9226794	A1	19930427	AU 1992-26794	19920916
JP 06510861	T2	19941201	JP 1992-506183	19920916
EP 642666	A1	19950315	EP 1992-920853	19920916
EP 642666	B1	20000412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
AT 191792	E	20000415	AT 1992-920853	19920916
ES 2145746	T3	20000716	ES 1992-920853	19920916
JP 3219409	B2	20011015	JP 1993-506183	19920916
US 6596476	B1	20030722	US 1997-905054	19970801

PRIORITY APPLN. INFO.:		
US 1991-760292	A	19910916
US 1989-456162	B2	19891222
US 1990-610180	B2	19901107
WO 1992-US7813	A	19920916
US 1994-183207	B1	19940118
US 1995-373920	B1	19950117
US 1995-507740	B1	19950726
US 1996-707355	B1	19960904

AB HCV antigen epitope-containing polypeptides are used in assays (combination assays, confirmatory assays, immunodot assays, and competition assays) for identifying the presence of HCV antibodies in a fluid sample. An immunoassay kit comprises such a polypeptide, sample preparation reagent(s), and detection and signal-producing reagent(s). Peptide p1684 (HCV 1684-1750), GRVVLSGKPAIIPDREVLYREFDEMEECSQHLPYIEQGMMLAEQFKQKALG LLQTASRQAEVIAPAV, was synthesized by solid phase method on a phenylacetamidomethyl resin, and used in an immunodot assay along with some other HCV polypeptides to detect antiHCV antibodies in human blood serum samples.

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:231556 CAPLUS
DOCUMENT NUMBER: 130:251206
TITLE: Chemiluminescent immunoassay for detecting antibodies to HCV
INVENTOR(S): Chien, David Y.; Arcangel, Phillip; Tirell, Stephen; Ziegler, Wanda
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9915898	A1	19990401	WO 1998-US19693	19980922
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2303123	AA	19990401	CA 1998-2303123	19980922
AU 9894979	A1	19990412	AU 1998-94979	19980922
EP 1021719	A1	20000726	EP 1998-948398	19980922
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001517797	T2	20011009	JP 2000-513145	19980922
US 6391540	B1	20020521	US 1998-158301	19980922
US 2001039009	A1	20011108	US 2001-775962	20010202
US 6537745	B2	20030325		
US 2003170618	A1	20030911	US 2003-354476	20030128

PRIORITY APPLN. INFO.:
US 1997-59703P P 19970922
US 1998-83921P P 19980501
US 1998-158815 A1 19980922
WO 1998-US19693 W 19980922
US 2001-775962 A1 20010202

AB The authors disclose to assays for detecting antibodies (e.g., to hepatitis C virus) in a sample in a single incubation step. The assays employ universal solid phases and/or universal detectable markers, and facilitate the detection and differentiation of antigens from the same source or from different sources in a single test sample. In an example, rat anti-human IgG antibodies, immobilized on paramagnetic microparticles, are used to capture antibodies capable of reacting with a fusion protein of synthetic HCV antigen MEFA-6 and superoxide dismutase. Chemiluminescent detection of captured antibodies is measured using anti-SOD antibodies conjugated with di-Me acridinium ester. The present invention includes test kits for performing the methods according to the invention.

L13 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:628723 CAPLUS

DOCUMENT NUMBER: 133:279822

TITLE: Laser-time-resolved fluorescence spectroscopy in immunoassays

AUTHOR(S): Pan, Lihua; Du, Jixian; Xie, Wenbing; Du, Qingyang; Yun, Qin

CORPORATE SOURCE: National Analytical Research Center of Eletrochemistry and Spectroscopy, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China

SOURCE: Guangpuxue Yu Guangpu Fenxi (2000), 20(3), 277-279
CODEN: GYGFED; ISSN: 1000-0593

PUBLISHER: Beijing Daxue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB This paper described a laser-excited time-resolved fluoroimmunoassay set. It made lanthanide ion to couple the anhydrde of diethylenetriaminepentaacetic acid (DTPAA) for labeling antibodies. The experiment used polystyrene tap coated with HCV antigen as the solid phase and a chelate of the rare earth metal europium as fluorescent label. A nitrogen laser beam was used to excite the Eu3+ chelates and after 60μs delay time, the emission fluorescence was measured. Background fluorescence of short lifetimes caused by serum components and Raman scattering can be eliminated by set the delay time. In the system condition, fluorescent spectra and fluorescent lifetimes of Eu3+ β-naphthoyltrifluroacetone (NTA) chelates were measured. The fluorescent lifetime value is 650 μs. The maximum emission wavelength is 613 nm. The linear range of europium ion concentration is 1x10-7- 1X10-11 g·mL-1 and the detection limit is 1x10-1g·mL-1. The relative standard deviation of determination (n= 12) for samples at 0.01 ng·mL-1 magnitude is 6.4%. Laser-TRFIA was also found to be suitable for diagnosis of HCV. The sensitivity and specificity were comparable to enzyme immunoassay. The result was obtained with laser-TRFIA for 29 human correlated well with enzyme immunoassay.

L13 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:23040 CAPLUS
DOCUMENT NUMBER: 138:88633
TITLE: Methods for the simultaneous detection of HCV antigens and HCV antibodies
INVENTOR(S): Shah, Dinesh O.; Dawson, George A.; Muerhoff, A. Scott; Jiang, Lily; Gutierrez, Robin A.; Leary, Thomas P.; Desai, Suresh; Stewart, James L.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003002749	A2	20030109	WO 2002-US19958	20020624
WO 2003002749	A3	20030710		
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003108858	A1	20030612	US 2001-891983	20010626
US 2003152948	A1	20030814	US 2002-173480	20020617
US 6727092	B2	20040427		
EP 1412538	A2	20040428	EP 2002-746647	20020624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: US 2001-891983 A 20010626
US 2002-173480 A 20020617
WO 2002-US19958 W 20020624

AB The subject invention relates to methods for the simultaneous detection of Hepatitis C Virus (HCV) antigens as well as antibodies produced in response to HCV antigens. Furthermore, the subject invention allows one to detect antigens in the early, acute stage of infection, even prior to the development of antibodies, thereby allowing for early detection of infected blood and blood products, thus improving the safety of the blood supply.

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NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	STN Patent Forums to be held in June 2005
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NEWS	21	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	22	JUN 13	FRFULL enhanced with patent drawing images
NEWS	23	JUN 20	MEDICONF to be removed from STN
NEWS	24	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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FULL ESTIMATED COST	0.06	0.27

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=> antigen (1) glutaraldehyde
L1 2050 ANTIGEN (L) GLUTARALDEHYDE

=> carrier (s) protein
L2 29161 CARRIER (S) PROTEIN

=> L1 and L2
L3 46 L1 AND L2

=> BSA and L3
L4 6 BSA AND L3

=> HCV and L3
L5 1 HCV AND L3

=> D L5 IBIB ABS

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:652870 CAPLUS
DOCUMENT NUMBER: 139:250375
TITLE: Protein chip for detecting blood bank sampling-induced infection
INVENTOR(S): Zhang, Tao; Li, Bin; Peng, Yongji; Li, Hongmei; Ren, Yiping
PATENT ASSIGNEE(S): Jingtai Biological Technology Cc., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent

LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1373365	A	20021009	CN 2001-142625	20011211
PRIORITY APPLN. INFO.:			CN 2001-142625	20011211

AB The **protein** chip for detecting blood bank sampling-induced infection via simultaneous detection of multiple **antigens** is prepared by fixing the **proteins** (such as anti-hepatitis B surface **antigen** (HBsAg) antibody, hepatitis C virus **antigen** (HCVAg) fragment, type I autoimmune-deficient virus **antigen** (ADVAg) fragment, type II ADVAg fragment, and syphilis **antigen** fragment), their pos. refs. (HBsAg fragment, anti-**HCV** surface **antigen** antibody fragment, anti-type I ADVAg fragment, anti-type II ADVAg fragment, and anti-syphilis antibody, resp.), and neg. reference (human serum albumin) on the **glutaraldehyde**-activated **carrier** (such as glass, cellulose acetate membrane, cellulose nitrate membrane, nylon membrane, Si sheet, steel sheet, or ceramic sheet).

=> D L4 IBIB ABS 1-4

L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:435478 CAPLUS
TITLE: Residue determination of SMD by ELISA
AUTHOR(S): Chen, Lianyi; Wang, Handong; Wang, Zongyuan
CORPORATE SOURCE: College of Animal Science and Veterinary Medicine, Yangzhou University, Yangzhou, Jiangsu Province, 225009, Peop. Rep. China
SOURCE: Zhongguo Shouyi Xuebao (2004), 24(4), 375-378
CODEN: ZSXUF5; ISSN: 1005-4545
PUBLISHER: Zhongguo Shouyi Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Bovine serum albumin (**BSA**) and ovalbumin (OVA) were used as two **protein carriers** resp. to couple with semiantigen sulfamethoxydiazine (SMD) by **glutaraldehyde** method. The complete **antigens** SMD-BAS and SMD-OVA were thus prepared and acted as immunoantigen and coating **antigen** resp. in ELISA protocol. The property of this antiserum was determined with two-direction agar diffusion test and ELISA protocol and it showed that antiserum was special to SMD. And the titer of antiserum was 1:2 560 by ELISA test. Indirect competitive ELISA (icELISA) was established with this antiserum. The most appropriate concentration and dilution of them was 50 mg/L, 1: 500 and 1 : 100 correspondingly. The standard curve of icELISA was established and the curve indicated that the lowest detection limit was 63 μg/L which was under the demanded detection limit of 100 μg/kg (EU) and 300 μg/kg (domestic). The curve had a favorable linearity relation within the concentration range of 10-2 000 μg/L. The recovery ratio was 94.7%. On the basis of the established protocol, two hens 20 mo old were taken as practical test samples. The content of SMD in serum was obtained through this established ELISA protocol.

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:407590 CAPLUS
DOCUMENT NUMBER: 127:105280
TITLE: Immunochemical assay for recognition of 2-S-Glutathionyl acetate, a glutathione conjugate derived from 1,1-dichloroethylene-epoxide
AUTHOR(S): Forkert, Poh-Gek; Collins, Kathy S.; Dowsley, Taylor F.; Ross, Gregory M.
CORPORATE SOURCE: Dep. of Anatomy and Cell Biology and Departments of Medicine and Pharmacology & Toxicology, Queen's University, Kingston, ON, K7L 3N6, Can.

SOURCE: Journal of Pharmacology and Experimental Therapeutics (1997), 281(3), 1422-1430
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Our objective is to develop an antiserum against the chemical synthesized 2-S-glutathionyl acetate (GTA), and for immunization, we have used a hapten that consists of GTA conjugated to bovine serum albumin (**BSA**) as the **carrier protein** and **glutaraldehyde** (GLUT) as a chemical cross-linker. The antisera were raised in rabbits and were characterized by using the following synthesized structural analogs: GTA, glycine-GLUT-**BSA** (GLY-GLUT-**BSA**), GTA-GLUT-ovalbumin (GTA-GLUT-OVB), GTA-1-ethyl-3-(3-dimethylaminopropyl)carbodiimide-**BSA** (GTA-EDC-**BSA**), TRIS-GLUT-**BSA**, glutathione-GLUT-**BSA** (GSH-GLUT-**BSA**). The ELISA and slot immunoblotting were used to characterize the specificity of the antisera. Noncompetitive ELISA expts. showed that the reaction of the antiserum with the **antigen** was concentration-dependent. In the competitive ELISA, GTA-GLUT-**BSA** inhibited binding efficiently; in contrast, the unconjugated GTA did not inhibit binding to the **antigen**. Competitive studies with the other analogs indicated low or minimal reactivities with the antibodies, which were blocked by incubation with GLY-GLUT-**BSA**. However, there was residual reactivity with the **antigen** that was not competitively inhibited by either the GTA-EDC-**BSA** or the GSH-GLUT-**BSA** conjugates. Slot-blotting expts. confirmed the findings of the ELISA studies and revealed high specificity of the antiserum to detect the hapten. These results demonstrated the successful development of polyclonal antibodies to detect GTA and hence 1,1-dichloroethylene (DCE) epoxide.

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:406561 CAPLUS
DOCUMENT NUMBER: 115:6561
TITLE: Antibodies against neuroactive amino acids and neuropeptides. I. A new two-step procedure for their conjugation to **carrier proteins** and the production of an anti-met-enkephalin antibody reactive with glutaraldehyde-fixed tissues
AUTHOR(S): Meyer, Karl Heinz; Behringer, Dirk M.; Veh, Ruediger W.
CORPORATE SOURCE: Abt. Neuroanat., Ruhr-Univ., Bochum, Germany
SOURCE: Journal of Histochemistry and Cytochemistry (1991), 39(6), 749-60
CODEN: JHCYAS; ISSN: 0022-1554
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new 2-step procedure was developed to couple haptens to bovine serum albumin (**BSA**) via **glutaraldehyde** (GA). After activation of **BSA** with excess GA and removal of unreacted GA, the hapten was bound to the activated protein in a second step. This 2-step procedure is easy to use, the desired mol. ratio of coupled hapten to protein is conveniently adjusted, and no visible precipitation of the conjugate is detected. Using a low peptide concentration, nearly 50% of the inserted haptens are bound to the protein, and unbound expensive peptide can be recovered after Sephadex chromatog. Antisera to neuroactive amino acids (GABA, glycine, and glutamate) and neuropeptides (Met-enkephalin) were prepared by immunization of rabbits with these conjugates. Immunol. anal. of immune sera by dot-blot and ELISA techniques and subsequent removal of cross-reactivities by solid-phase adsorption yielded monospecific antibodies, which were further purified by affinity chromatog. The immunocytochem. specificities of these purified antibodies were verified in adjacent sections of GA-fixed rat spinal cord. Pre-embedding staining with anti-Met-enkephalin in combination with post-embedding staining for amino acids such as GABA allowed double staining of the two **antigens** in a single semi-thin section.

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1979:20735 CAPLUS
DOCUMENT NUMBER: 90:20735
TITLE: [Pancreatic glucagon] antigen production
INVENTOR(S): Nishino, Tomoyoshi
PATENT ASSIGNEE(S): Otsuka Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53099320	A2	19780830	JP 1977-13919	19770210
JP 58036308	B4	19830808		
BE 863810	A1	19780529	BE 1978-185040	19780209
DK 7800597	A	19780811	DK 1978-597	19780209
DK 157340	B	19891218		
DK 157340	C	19900514		
SE 7801545	A	19780811	SE 1978-1545	19780209
SE 427931	B	19830524		
SE 427931	C	19830901		
DE 2805663	A1	19780817	DE 1978-2805663	19780210
DE 2805663	B2	19800313		
DE 2805663	C3	19801113		
FR 2380296	A1	19780908	FR 1978-3905	19780210
FR 2380296	B1	19810710		
GB 1580582	A	19801203	GB 1978-5388	19780210
US 4221777	A	19800909	US 1978-924319	19780713
US 4272433	A	19810609	US 1979-77221	19790920

PRIORITY APPLN. INFO.: JP 1977-13919 A 19770210
US 1978-876799 A3 19780210

AB An **antigen** is produced from a peptide H-(Arg)m-Ala-Glu(NH2)-Asp-Phe-Val-Glu(NH2)-Trp-Leu-Met-Asp(NH2)-Thr (I; m = 0 or 1) as a hapten, a dialdehyde OHC(CH2)nCHO (n = 1-5) as coupling agent, and a **carrier protein**; the **antigen** is used to produce an antibody having high specificity to pancreatic glucagon. Thus, 6 mg GCTR-1 (I; m = 1) was dissolved in 0.2 mL 0.2N KOH, mixed with a solution containing 20 mg bovine serum albumin (**BSA**) in 2 mL NaOH 0.2-boric acid 0.2-KCl 0.2M buffer (pH9), and to this was added dropwise 1 mL 0.05M **glutaraldehyde**. The mixture (4 mL) was stirred at room temperature for 24 h, mixed with an equal volume of 2% Na dodecyl sulfate, heated to dissolve precipitate, and fractionated by column chromatog. on Sephadex G-75. Fraction I (GCTR-1-**BSA** complex) was collected, dialyzed, and freeze-dried to obtain 17.3 mg GCTR-1-**BSA** complex. The complex (7 mg) was dissolved in 1.8 mL physiol. saline, and mixed with 2.7 mL Freund's adjuvant. The mixture (1 mL) was injected s.c. into a rabbit and a booster injection was administered 2 wk later. Thereafter, the rabbit was injected every other wk with 1 mL solution containing 3 mg of the **antigen** and 3 mL each of physiol. saline and Freund's adjuvant for 3.5 mo. Antiserum was collected from the rabbit 10 days after the final injection. The antiserum had high specificity to pancreatic glucagon, but not to glucagon-like substances of different origins.

=> cross (s) link
L6 16537 CROSS (S) LINK

=> L1 and L6
L7 4 L1 AND L6

=> D L7 IBIB ABS 1-4

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:293678 CAPLUS
DOCUMENT NUMBER: 140:301961
TITLE: Breast cancer antigen immunosensor based on the functional sol-gel film
AUTHOR(S): Liang, Ru-Ping; Qiu, Jian-Ding; Zou, Xiao-Yong; Cai, Pei-Xiang
CORPORATE SOURCE: Sch. Chem. Chem. Eng., Zhongshan Univ., Guangzhou, 510275, Peop. Rep. China
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (2004), 25(3), 425-429
CODEN: KTHPDM; ISSN: 0251-0790
PUBLISHER: Gaodeng Jiaoyu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB A new type of non-labeled immunosensor for the determination of breast cancer **antigen** (CA15-3) was made by combining sol-gel with **cross -link** techniques and utilizing **glutaraldehyde** (GA) to **link** CA15-3 antibody (Ab) on the functional sol-gel film, so the sol-gel/GA/Ab layer was immobilized on the surface of platinum disk electrode. IR spectrum (IR) and cyclic voltammetry (CV) were employed to investigate the structure and the electrochem. characteristics of the immunosensor, resp. The linearity of CA15-3 in the range of 8-240 U/mL with a detection limit of 5 U/mL and the correlation coefficient of 0.:998 are obtained. The exptl. results show that the activity of the immobilized CA15-3 antibody is maintained better by this method, and the stability of the immnunosensor is improved. The dependences of the, potential response on pH, incubation time, sensitivity and reproducibility were studied, and the stability of the sensor was also evaluated. The immunosensor was stable for about 30 days when stored in a dry state at 4°. Satisfactory determination results of CA15-3 in serum samples were obtained by this method.

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1973:109103 CAPLUS
DOCUMENT NUMBER: 78:109103
TITLE: Antibody enzyme conjugates. Preparation of intermolecular conjugates of horseradish peroxidase and antibody and their use in immunohistology of renal cortex
AUTHOR(S): Clyne, David H.; Norris, Stephen H.; Modesto, Rosario, R.; Pesce, Amadeo J.; Pollak, Victor E.
CORPORATE SOURCE: Med. Cent., Michael Reese Hosp., Chicago, IL, USA
SOURCE: Journal of Histochemistry and Cytochemistry (1973), 21(3), 229-36
CODEN: JHCYAS; ISSN: 0022-1554
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The studies reported were done with the objectives of preparing peroxidase-labeled antibody conjugates and of testing their usefulness for the detection of soluble and insol. tissue **antigens**. **Glutaraldehyde**, toluene diisocyanate, and N,N'-dicyclohexylcarbodiimide were used to **cross-link** horseradish peroxidase to goat antirabbit immunoglobulin G. The resulting conjugates were characterized by mol. size and enzymic and immunol. activity. They were then tested for their properties as immunohistol. reagents using 0.5-μ sections of freeze-substituted paraffin-embedded renal cortical tissue. Excellent results were obtained with a highly polymerized conjugate made with **glutaraldehyde** and with an unpolymd. conjugate made with toluene diisocyanate. With the use of these conjugates tissue localization of both soluble and insol. **antigens** was achieved after subsequent fixation of tissue and counterstaining with periodic acid-Schiff-hematoxylin.

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1969:66297 CAPLUS
DOCUMENT NUMBER: 70:66297
TITLE: Antigenicity of formaldehyde- and glutaraldehyde-treated bovine serum albumin and ovalbumin-bovine

serum albumin conjugate
AUTHOR(S): Habeeb, A. F. S. A.
CORPORATE SOURCE: St. Jude Child. Res. Hosp., Memphis, TN, USA
SOURCE: Journal of Immunology (1969), 102(2), 457-65
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chemical conformational, and antigenic studies of bovine serum albumin (BSA) treated with H2CO or glutaraldehyde, as well as of a conjugate formed by intermol. cross-linking of ovalbumin (OA) to BSA, were undertaken. H2CO reacted predominantly with the free amino groups and caused intramol. **cross-links**, with no apparent change in the shape or antigenicity of the mol. Glutaraldehyde caused intermol. cross-linkages which formed soluble aggregates; such modified proteins were antigenic in rabbits and produced antibodies with 2 specificities, one directed against antigenic determinants on BSA and the other against newly acquired groups arising from the modification. Anti-OA-BSA conjugated contained antibodies against antigenic determinants of BSA, OA, and glutaraldehyde-treated BSA and OA.

L7 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:172673 BIOSIS
DOCUMENT NUMBER: PREV200000172673
TITLE: Fixative-dependent increase in immunogold labeling following antigen retrieval on acrylic and epoxy sections.
AUTHOR(S): Brorson, Sverre-Henning [Reprint author]
CORPORATE SOURCE: Department of Pathology, Ulleval Hospital, Kirkeveien 166, 0407, Oslo, Norway
SOURCE: Biotechnic and Histochemistry, (Sept., 1999) Vol. 74, No. 5, pp. 248-260. print.
CODEN: BIHIEU. ISSN: 1052-0295.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 May 2000
Last Updated on STN: 4 Jan 2002

AB We examined the increase in immunogold labeling of variably fixed, resin embedded tissue sections following **antigen** retrieval by heating in citrate solution. Fibrin clots and porcine renal tissue were fixed in **glutaraldehyde**, paraformaldehyde or ethanol, and specimens were embedded in LR-White or epoxy resin. Immunogold labeling was performed on ultrathin sections with anti-fibrinogen for the fibrin clots and anti-IgG for the porcine renal tissue. Immunogold labeling increased greatly after heating epoxy sections regardless of the fixative used. The ratio labelingretrieved/labelingnonretrieved (Lr/Ln) was 2.8 or higher, and the largest increases were obtained for anti-IgG. Heating induced a large increase of immunolabeling for LR-White sections only when the specimens had been fixed in paraformaldehyde (Lr/Ln = 2.2 for anti-IgG and 1.4 for antifibrinogen). LR-White sections showed decreased, insignificant or weakly increased immunolabeling of ethanol or **glutaraldehyde** fixed tissues following **antigen** retrieval. Disruption of aldehyde **cross-links** is not the only mechanism for **antigen** retrieval when epoxy sections are heated in citrate solution since large increases in immunolabeling were obtained on ethanol fixed tissue. The large heat-induced increases in immunolabeling on epoxy sections are probably caused by the disruption of chemical bonds between the epoxy resin and side groups of proteins.

```
=> BSA
L8       25629 BSA

=> cross (w) link
L9       15841 CROSS (W) LINK

=> antigen
L10     733101 ANTIGEN
```

=> L8 and L9
L11 52 L8 AND L9

=> l10 and L11
L12 5 L10 AND L11

=> D L12 IBIB ABS 1-5

L12 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:61925 CAPLUS
DOCUMENT NUMBER: 139:47067
TITLE: Gene expression profiling of Ca2+-ATPase inhibitor DTBHQ and **antigen**-stimulated RBL-2H3 mast cells
AUTHOR(S): Nakamura, R.; Ishida, S.; Ozawa, S.; Saito, Y.; Okunuki, H.; Teshima, R.; Sawada, J.
CORPORATE SOURCE: Division of Biochemistry and Immunochemistry, National Institute of Health Sciences, Tokyo, 158-8501, Japan
SOURCE: Inflammation Research (2002), 51(12), 611-618
CODEN: INREFB; ISSN: 1023-3830
PUBLISHER: Birkhaeuser Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Objective and Design: Ca2+ signaling is critical for mast cell activation by **antigen** stimulation, and we previously described that the signaling can be mimicked by Ca2+-ATPase inhibitors. We therefore investigated the effect of the Ca2+-ATPase inhibitor and **antigen** stimulation on the gene expression profiles of RBL-2H3 mast cells. Material: A Ca2+-ATPase inhibitor, 2,5-di(tert-butyl)-1,4-hydroquinone (DTBHQ), an **antigen** (dinitrophenylated **BSA**), a high-d. oligonucleotide microarray (Affymetrix GeneChip) technique, and a well-characterized rat mast cell line RBL-2H3 were used. Treatment: RBL-2H3 cells were activated for 3 h with 10 μM DTBHQ, which increases cytosolic Ca2+ concentration, or 10 μg/mL **antigen**, which **cross-links** IgE receptors, and the mRNA expression profiles (8,799 genes) were analyzed with GeneChip arrays (n = 3). Methods: Expression levels were measured by GeneChip, and the differences were tested by Welch's t-test and P-values less than 0.05 were considered statistically significant. Values are expressed as means ± SEM. Results: The genes, including MCP-1, GADD45, Relaxin H1, CSF-1, c-jun-oncogene, Pyk-2, NKR-P2 and CREM, were significantly up-regulated by both DTBHQ and **antigen** stimuli, whereas the genes including interleukin (IL)-3, IL-4, IL-9, IL-13, GADD153, butyrate response factor, and Fas ligand, were up-regulated by DTBHQ alone. On the other hand, the expression of several genes, including GATA-1, were down-regulated by DTBHQ stimulation. Conclusions: These results suggest (1) that DTBHQ seems to induce proinflammatory responses by stimulating the production of several cytokines through the expression of several transcription factors, (2) that the changes in gene expression profile induced by DTBHQ and by IgE receptor crosslinking in mast cells were almost the same, but many more stress-inducible genes like GADD153 were up-regulated by the former.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:211495 CAPLUS
DOCUMENT NUMBER: 128:320276
TITLE: Kinetics of multivalent **antigen** DNP-**BSA** binding to IgE-FcεRI in relationship to the stimulated tyrosine phosphorylation of FcεRI
AUTHOR(S): Xu, Keli; Goldstein, Byron; Holowka, David; Baird, Barbara
CORPORATE SOURCE: Department Chemistry, Baker Laboratory, Cornell University, Ithaca, NY, 14853, USA
SOURCE: Journal of Immunology (1998), 160(7), 3225-3235
CODEN: JOIMA3; ISSN: 0022-1767

PUBLISHER: American Association of Immunologists
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Multivalent DNP-**BSA** is commonly used to **cross-link** anti-DNP IgE bound to FcεRI to stimulate cellular responses, although key features of the binding process are unknown. Fluorescence quenching can be used to study the kinetics of DNP-**BSA** binding to FITC-IgE. The authors observe that DNP-**BSA** binds more slowly to IgE than does an equimolar amount of a monovalent DNP ligand, suggesting that the average effective number of DNP groups per **BSA** is less than one. The binding data are well described by a transient hapten exposure model in which most of the DNP groups are unavailable for binding but have some probability of becoming exposed and available for binding during the time of the binding measurement. Addnl. expts. indicate that, for suboptimal to optimal concns. of DNP-**BSA**, most of the FITC fluorescence quenching on the cell surface is due to crosslinking events. With these concns. at 15°, the kinetics of FITC fluorescence quenching by DNP-**BSA** correlates with the kinetics of DNP-**BSA**-stimulated tyrosine phosphorylation of FcεRI. At 35°, the phosphorylation kinetics are biphasic during the time period in which crosslinking continues to increase. The results establish a quant. relation between the time-course for crosslinking by multivalent Ag and FcεRI-medicated signaling, and they provide the means to predict the kinetics of crosslinking under a wide variety of conditions.
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1969:66297 CAPLUS
DOCUMENT NUMBER: 70:66297
TITLE: Antigenicity of formaldehyde- and glutaraldehyde-treated bovine serum albumin and ovalbumin-bovine serum albumin conjugate
AUTHOR(S): Habeeb, A. F. S. A.
CORPORATE SOURCE: St. Jude Child. Res. Hosp., Memphis, TN, USA
SOURCE: Journal of Immunology (1969), 102(2), 457-65
CODEN: JOIMA3; ISSN: 0022-1767
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chemical conformational, and antigenic studies of bovine serum albumin (**BSA**) treated with H2CO or glutaraldehyde, as well as of a conjugate formed by intermol. cross-linking of ovalbumin (OA) to **BSA**, were undertaken. H2CO reacted predominantly with the free amino groups and caused intramol. **cross-links**, with no apparent change in the shape or antigenicity of the mol. Glutaraldehyde caused intermol. cross-linkages which formed soluble aggregates; such modified proteins were antigenic in rabbits and produced antibodies with 2 specificities, one directed against antigenic determinants on **BSA** and the other against newly acquired groups arising from the modification. Anti-OA-**BSA** conjugated contained antibodies against antigenic determinants of **BSA**, OA, and glutaraldehyde-treated **BSA** and OA.

L12 ANSWER 4 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2004:99138 BIOSIS
DOCUMENT NUMBER: PREV200400097439
TITLE: Highly effective poly(ethylene glycol) architectures for specific inhibition of immune receptor activation.
AUTHOR(S): Baird, Emily J.; Holowka, David; Coates, Geoffrey W. [Reprint Author]; Baird, Barbara [Reprint Author]
CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY, 14853-1301, USA
gc39@cornell.edu; bab13@cornell.edu
SOURCE: Biochemistry, (November 11 2003) Vol. 42, No. 44, pp. 12739-12748. print.
ISSN: 0006-2960 (ISSN print).

DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Feb 2004
Last Updated on STN: 18 Feb 2004

AB Architectural features of synthetic ligands were systematically varied to optimize inhibition of mast cell degranulation initiated by multivalent crossing of IgE-receptor complexes. A series of ligands were generated by end-capping poly(ethylene glycol) (PEG) polymers and amine-based dendrimers with the hapten 2,4-dinitrophenyl (DNP). These were used to explore the influence of polymeric backbone length, valency, and hapten presentation on binding to anti-DNP IgE and inhibition of stimulated activation of RBL cells. Monovalent MPEG5000-DNP (IC50=50 nM), bivalent DNP-PEG3350-DNP (IC50=8 nM), bismonovalent MPEG5000-DNP2 (IC50=20 nM), bisbivalent DNP2-PEG3350-DNP2 (IC50=3nM) and DNP4-dendrimer ligands (IC50=50 nM) all effectively inhibit cellular activation caused by multivalent **antigen**, DNP-bovine serum albumin. For different DNP ligands, we provide evidence for more effective inhibition due to (i) preferential formation of intra-IgE **cross-links** by bivalent ligands of sufficient length, (ii) self-association of monovalent ligands with longer tails, and (iii) higher probability of binding for bisvalent ligands. We also show that larger DNP16-dendrimers of higher valency trigger degranulation by cross-linking IgE-receptor complexes, whereas smaller DNP-dendrimers are inhibitory. Thus, features of synthetic ligands can be manipulated to control receptor occupation, aggregation, and inhibition of the cellular response.

L12 ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:149546 BIOSIS
DOCUMENT NUMBER: PREV200300149546
TITLE: Gene expression profiling of Ca2+-ATPase inhibitor DTBHQ and **antigen**-stimulated RBL-2H3 mast cells.
AUTHOR(S): Nakamura, R.; Ishida, S.; Ozawa, S.; Saito, Y.; Okunuki, H.; Teshima, R. [Reprint Author]; Sawada, J.
CORPORATE SOURCE: Division of Biochemistry and Immunochemistry, National Institute of Health Sciences, Kamiyoga 1-18-1, Setagaya-ku, Tokyo, 158-8501, Japan
rteshima@nihs.go.jp
SOURCE: Inflammation Research, (December 2002) Vol. 51, No. 12, pp. 611-618. print.
ISSN: 1023-3830.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Mar 2003
Last Updated on STN: 19 Mar 2003

AB Objective and Design: Ca2+ signaling is critical for mast cell activation by **antigen** stimulation, and we previously described that the signaling can be mimicked by Ca2+-ATPase inhibitors. We therefore investigated the effect of the Ca2+-ATPase inhibitor and **antigen** stimulation on the gene expression profiles of RBL-2H3 mast cells. Material: A Ca2+-ATPase inhibitor, 2,5-di(tert-butyl)-1,4-hydroquinone (DTBHQ), an **antigen** (dinitrophenylated **BSA**), a high-density oligonucleotide microarray (Affymetrix GeneChip) technique, and a well-characterized rat mast cell line RBL-2H3 were used. Treatment: RBL-2H3 cells were activated for 3 h with 10 muM DTBHQ, which increases cytosolic Ca2+ concentration, or 10 mug/ml **antigen**, which **cross-links** IgE receptors, and the mRNA expression profiles (8,799 genes) were analyzed with GeneChip arrays (n = 3). Methods: Expression levels were measured by GeneChip, and the differences were tested by Welch's t-test and P-values less than 0.05 were considered statistically significant. Values are expressed as means +- SEM. Results: The genes, including MCP-1, GADD45, Relaxin H1, CSF-1, c-jun-oncogene, Pyk-2, NKR-P2 and CREM, were significantly up-regulated by both DTBHQ and **antigen** stimuli, whereas the genes including interleukin (IL)-3, IL-4, IL-9, IL-13, GADD153, butyrate response factor, and Fas ligand, were up-regulated by DTBHQ alone. On the other hand, the expression of several genes, including GATA-1, were down-regulated by DTBHQ stimulation. Conclusions: These results suggest 1) that DTBHQ seems

to induce proinflammatory responses by stimulating the production of several cytokines through the expression of several transcription factors, 2) that the changes in gene expression profile induced by DTBHQ and by IgE receptor crosslinking in mast cells were almost the same, but many more stress-inducible genes like GADD153 were up-regulated by the former.

=> carrier (w) protein
L13 13942 CARRIER (W) PROTEIN

=> L13 and L10
L14 1620 L13 AND L10

=> conjugate and L14
L15 624 CONJUGATE AND L14

=> HCV and L15
L16 2 HCV AND L15

=> L1
L17 2050 L1

=> L2
L18 29161 L2

=> L15 and L1
L19 12 L15 AND L1

=> L15 and L2
L20 624 L15 AND L2

=> L3 and HCV
L21 1 L3 AND HCV

=> D L21 IBIB ABS

L21 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:652870 CAPLUS
DOCUMENT NUMBER: 139:250375
TITLE: Protein chip for detecting blood bank sampling-induced infection
INVENTOR(S): Zhang, Tao; Li, Bin; Peng, Yongji; Li, Hongmei; Ren, Yiping
PATENT ASSIGNEE(S): Jingtai Biological Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1373365	A	20021009	CN 2001-142625	20011211

PRIORITY APPLN. INFO.: CN 2001-142625 20011211

AB The **protein** chip for detecting blood bank sampling-induced infection via simultaneous detection of multiple **antigens** is prepared by fixing the **proteins** (such as anti-hepatitis B surface **antigen** (HBsAg) antibody, hepatitis C virus **antigen** (HCVAg) fragment, type I autoimmune-deficient virus **antigen** (ADVAg) fragment, type II ADVAg fragment, and syphilis **antigen** fragment), their pos. refs. (HBsAg fragment, anti-**HCV** surface **antigen** antibody fragment, anti-type I ADVAg fragment, anti-type II ADVAg fragment, and anti-syphilis antibody, resp.), and neg. reference (human serum albumin) on the **glutaraldehyde**-activated **carrier** (such as glass, cellulose acetate membrane, cellulose

nitrate membrane, nylon membrane, Si sheet, steel sheet, or ceramic sheet).

=> D L16 IBIB ABS 1-2

L16 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:449890 CAPLUS
DOCUMENT NUMBER: 141:189366
TITLE: Immunization with **HCV** synthetic peptides conjugated to the P64k protein elicited strong antibody response in mice
AUTHOR(S): Alvarez-Lajonchere, Liz; Martinez, Gillian; Morales, Juan; Aguilar, Julio C.; Duenas-Carrera, Santiago
CORPORATE SOURCE: HCV Department, Vaccine Division, Centro de Ingenieria Genetica y Biotecnologia, Havana City, Cuba
SOURCE: Biotecnologia Aplicada (2003), 20(4), 209-213
CODEN: BTAPEP; ISSN: 0864-4551
PUBLISHER: Elfos Scientiae
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Two synthetic peptides comprising aa regions in the NS4 protein (aa 1689-1735) and the hypervariable region I (HVR I, aa 384-414) in the **HCV** E2 protein were conjugated to the P64k protein, a previously demonstrated **carrier protein**. These peptides were also conjugated to the Co. 120 protein, a truncated **HCV** core variant, to evaluate for the first time its ability as a carrier for B cell epitopes. Five micrograms of free peptides or **conjugates**, without an adjuvant, were administered s.c. to mice to evaluate the immune response of anti-**HCV** peptides. After four doses at weeks 0, 3, 6 and 10, only the animals vaccinated with the **conjugates** had a pos. antibody response against **HCV** peptides. Mice immunized with the conjugated P64k elicited the strongest antibody response against both NS4 and HVR I peptides. Particularly, the mean antibody titers against the HVR I peptide reached 1: 39,000 in mice immunized with the conjugated P64k. Unfortunately, anti-HVR I antibodies elicited by both, Co.120 and P64k **conjugates** only recognized the homologous HVR I sequence. The results indicate that conjugation to **carrier proteins** could be a feasible strategy to induce a strong antibody response against the HVR I that is potentially able to neutralize the homologous isolate of **HCV**.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
TW 562927	B	20031121	TW 1997-86105490	19970426
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506

US 2002081630 A1 20020627 US 2001-28172 20011221
PRIORITY APPLN. INFO.: JP 1996-112442 A 19960507
US 1997-850328 A1 19970502

AB Hepatitis C virus **antigen** or **carrier protein** **conjugate** is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing **HCV** infection. The **HCV antigen** is core **antigen**, NS3 **antigen**, NS4 **antigen**, or NS5 **antigen**, and the **carrier protein** is bovine serum albumin, egg white albumin or hemocyanin.

=> D L19 IBIB ABS 1-12

L19 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:891632 CAPLUS
DOCUMENT NUMBER: 134:41090
TITLE: Peptide immunogen as vaccine for allergic reaction and its preparation
INVENTOR(S): Liu, Qingliang
PATENT ASSIGNEE(S): Shanghai Inst. of Biological Products, Ministry of Health, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 30 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1253953	A	20000524	CN 1998-121989	19981112

PRIORITY APPLN. INFO.: CN 1998-121989 19981112

AB Human IgE receptor-binding peptide epitopes are disclosed for use as vaccines for treating hypersensitivity. The peptides are conjugated with **carrier protein**, or are fusion protein containing **carrier protein**, and are administered with adjuvant. The **carrier protein** is selected from hepatitis B surface **antigen**, hepatitis B core **antigen**, or nucleoprotein of rabies virus, preferably hepatitis B surface **antigen**. The adjuvant is liposome, Al(OH)3 gel, gamma-inulin, or tucaresol, preferably liposome. The human vaccine is prepared by synthesizing and purifying peptide immunogen, conjugated with **carrier protein** in the presence of chemical crosslinking agent (or transferring into E. coli, saccharomyces, or phage, expressing, separating), and mixing with adjuvant. The chemical crosslinking agent is **glutaraldehyde**, bis(diazo)benzidine, etc.

L19 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:62274 CAPLUS
DOCUMENT NUMBER: 132:206650
TITLE: Glutaraldehyde (GA)-hapten adducts, but without a **carrier protein**, for use in a specificity study on an antibody against a GA-conjugated hapten compound: histamine monoclonal antibody (AHA-2) as a model
AUTHOR(S): Fujiwara, Kunio; Murata, Ikuo; Yagisawa, Shiroki; Tanabe, Toshio; Yabuuchi, Masahiko; Sakakibara, Ryuzo; Tsuru, Daisuke
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Nagasaki University, Nagasaki, 852-8131, Japan
SOURCE: Journal of Biochemistry (Tokyo) (1999), 126(6), 1170-1174
CODEN: JOBIAO; ISSN: 0021-924X
PUBLISHER: Japanese Biochemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In the authors' recent study on monoclonal antibodies (mAbs AHA-1-5) against **glutaraldehyde** (GA)-conjugated histamine(HA), the authors identified one mAb (AHA-2) which can detect neuronal HA in the rat brain with an immunocytochem. method (ICC). In the present study the specificity of AHA-2 mAb for use for ICC has been examined by competitive expts. involving HA and analogs, all of which had been allowed to react with GA followed by sodium borohydride, but not allowed to couple with the **carrier protein**. It was demonstrated that the antibody distinguished alterations in the chemical structure of the mol., showing decreased immunoreactivity with all the GA-adducts of (R)-(-)-α-methylhistamine, 1- and 3-methylhistamine, L-histidine, and 1- and 3-methyl-L-histidine. AHA-1 mAb only reacted with GA-adducts of 3-MeHA (3-MeHA-GA) and HA (HA-GA), to almost the same degree, in relatively high concentration ranges. AHA-3, 4, and 5 mAbs reacted about 10- times more strongly with 1-MeHA-GA than with HA-GA, but reacted very little or not at all with the other analogs. These results may suggest that AHA-2 mAb recognized both the non-substituted imidazole and α-methine groups of a HA mol. in addition to the conjugation site of GA including the part(s) reduced with NaBH4, and especially the imidazole group more strictly than the other mAbs. This may partly explain why AHA-2, among the five AHA mAbs, can detect neuronal HA with an ICC method. The present ELISA method for GA-hapten adducts should be applicable to other antibodies against GA-conjugated biol. active amines or amino acids, thus allowing the study of antibody specificity for ICC more easily and accurately than was previously possible with hapten-protein **conjugates** as **antigens**.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:407590 CAPLUS

DOCUMENT NUMBER: 127:105280

TITLE: Immunochemical assay for recognition of 2-S-Glutathionyl acetate, a glutathione **conjugate** derived from 1,1-dichloroethylene-epoxide

AUTHOR(S): Forkert, Poh-Gek; Collins, Kathy S.; Dowsley, Taylor F.; Ross, Gregory M.

CORPORATE SOURCE: Dep. of Anatomy and Cell Biology and Departments of Medicine and Pharmacology & Toxicology, Queen's University, Kingston, ON, K7L 3N6, Can.

SOURCE: Journal of Pharmacology and Experimental Therapeutics (1997), 281(3), 1422-1430
CODEN: JPETAB; ISSN: 0022-3565

PUBLISHER: Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Our objective is to develop an antiserum against the chemical synthesized 2-S-glutathionyl acetate (GTA), and for immunization, we have used a hapten that consists of GTA conjugated to bovine serum albumin (BSA) as the **carrier protein** and **glutaraldehyde** (GLUT) as a chemical cross-linker. The antisera were raised in rabbits and were characterized by using the following synthesized structural analogs: GTA, glycine-GLUT-BSA (GLY-GLUT-BSA), GTA-GLUT-ovalbumin (GTA-GLUT-OVB), GTA-1-ethyl-3-(3-dimethylaminopropyl)carbodiimide-BSA (GTA-EDC-BSA), TRIS-GLUT-BSA, glutathione-GLUT-BSA (GSH-GLUT-BSA). The ELISA and slot immunoblotting were used to characterize the specificity of the antisera. Noncompetitive ELISA expts. showed that the reaction of the antiserum with the **antigen** was concentration-dependent. In the competitive ELISA, GTA-GLUT-BSA inhibited binding efficiently; in contrast, the unconjugated GTA did not inhibit binding to the **antigen**. Competitive studies with the other analogs indicated low or minimal reactivities with the antibodies, which were blocked by incubation with GLY-GLUT-BSA. However, there was residual reactivity with the **antigen** that was not competitively inhibited by either the GTA-EDC-BSA or the GSH-GLUT-BSA **conjugates**. Slot-blotting expts. confirmed the findings of the ELISA studies and revealed high specificity of the antiserum to detect the hapten. These results demonstrated the successful development of

polyclonal antibodies to detect GTA and hence 1,1-dichloroethylene (DCE) epoxide.

L19 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1991:406561 CAPLUS
DOCUMENT NUMBER: 115:6561
TITLE: Antibodies against neuroactive amino acids and neuropeptides. I. A new two-step procedure for their conjugation to **carrier proteins** and the production of an anti-met-enkephalin antibody reactive with glutaraldehyde-fixed tissues
AUTHOR(S): Meyer, Karl Heinz; Behringer, Dirk M.; Veh, Ruediger W.
CORPORATE SOURCE: Abt. Neuroanat., Ruhr-Univ., Bochum, Germany
SOURCE: Journal of Histochemistry and Cytochemistry (1991), 39(6), 749-60
CODEN: JHCYAS; ISSN: 0022-1554
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new 2-step procedure was developed to couple haptens to bovine serum albumin (BSA) via **glutaraldehyde** (GA). After activation of BSA with excess GA and removal of unreacted GA, the hapten was bound to the activated protein in a second step. This 2-step procedure is easy to use, the desired mol. ratio of coupled hapten to protein is conveniently adjusted, and no visible precipitation of the **conjugate** is detected. Using a low peptide concentration, nearly 50% of the inserted haptens are bound to the protein, and unbound expensive peptide can be recovered after Sephadex chromatog. Antisera to neuroactive amino acids (GABA, glycine, and glutamate) and neuropeptides (Met-enkephalin) were prepared by immunization of rabbits with these **conjugates**. Immunol. anal. of immune sera by dot-blot and ELISA techniques and subsequent removal of cross-reactivities by solid-phase adsorption yielded monospecific antibodies, which were further purified by affinity chromatog. The immunocytochem. specificities of these purified antibodies were verified in adjacent sections of GA-fixed rat spinal cord. Pre-embedding staining with anti-Met-enkephalin in combination with post-embedding staining for amino acids such as GABA allowed double staining of the two **antigens** in a single semi-thin section.

L19 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:110412 CAPLUS
DOCUMENT NUMBER: 108:110412
TITLE: The influence of pH and ionic strength on the coating of peptides of herpes simplex virus type 1 in an enzyme-linked immunosorbent assay
AUTHOR(S): Geerligs, H. J.; Weijer, W. J.; Bloemhoff, W.; Welling, G. W.; Welling-Wester, S.
CORPORATE SOURCE: Lab. Med. Microbiol., Rijksuniv. Groningen, Groningen, 9713 EZ, Neth.
SOURCE: Journal of Immunological Methods (1988), 106(2), 239-44
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Rabbits were immunized with synthetic peptides of herpes simplex virus type 1 glycoproteins, coupled to a **carrier protein** with **glutaraldehyde**. Antibodies directed against the peptides were determined in an ELISA. Either free peptides or peptides coupled with **glutaraldehyde** to another **carrier protein** than the one used for immunization were used as the coating **antigen**. When conjugated peptides were used as the coat, it was necessary in some instances to correct the antibody titers for a substantial amount of antibody activity against **glutaraldehyde**. When free peptides were used, optimal coating conditions with regard to pH and ionic strength had to be determined, since some peptides failed to coat under standard conditions, at pH 9.6. Some peptides needed stringent pH conditions while others could be coated in a broad pH range. The addition of 0.6 M NaCl had a

favorable effect on peptide coating.

L19 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:435769 CAPLUS
DOCUMENT NUMBER: 103:35769
TITLE: Synthetic peptides as **antigen**: pitfalls of conjugation methods
AUTHOR(S): Briand, J. P.; Muller, S.; Van Regenmortel, M. H. V.
CORPORATE SOURCE: Inst. Biol. Mol. Cell., CNRS, Strasbourg, 67000, Fr.
SOURCE: Journal of Immunological Methods (1985), 78(1), 59-69
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Peptide-carrier **conjugates** were prepared using 9 different synthetic peptides, 3 **carrier proteins** and 4 coupling reagents. Residues of the **carrier protein** that were modified by different coupling reagents (e.g., **glutaraldehyde**, carbodiimides, bis-diazotized benzidine) were found to elicit specific antibodies that reacted with unrelated **carrier proteins** treated with the same coupling agent. To demonstrate the presence of peptide antibodies in an antiserum raised against a peptide-carrier **conjugate**, it was necessary to use as **antigen** the peptide coupled to another carrier by means of a different coupling agent. Some of the commonly used conjugation methods were found to lead to **conjugates** of insufficient stability and sometimes also altered the antigenic properties of the peptide moiety. These difficulties can be overcome by addnl. control expts. designed to test the quality and the peptide-carrier **conjugates**.

L19 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1984:172760 CAPLUS
DOCUMENT NUMBER: 100:172760
TITLE: Conjugation of DNA fragments to protein carriers by glutaraldehyde: immunogenicity of oligonucleotide-hemocyanin **conjugates**
AUTHOR(S): Borel, Halina; Sasaki, Takeshi; Stollar, David B.; Borel, Yves
CORPORATE SOURCE: Div. Immunol., Child. Hosp. Med. Cent., Boston, MA, 02115, USA
SOURCE: Journal of Immunological Methods (1984), 67(2), 289-302
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Specific immunotherapy for systemic lupus erythematosus (SLE) has been hampered by a inability to link DNA fragments to **carrier protein**. Here, a novel technique is described, in which **glutaraldehyde** is the linking agent. A 2-stage method was used to link oligonucleotides to a soluble protein carrier, such as keyhole limpet hemocyanin (KLH) or human γ-globulin (HTT), whereas a 1-stage technique was sufficient to link oligonucleotides to sheep red cells. Both the UV absorbance spectrum and diphenylamine assay demonstrated that oligonucleotides were coupled to soluble protein. The **conjugate** of oligonucleotide and protein carrier appears to be recognized by anti-DNA antibody since oligonucleotide linked to either KLH or HGG inhibited the binding of anti-DNA antibody in vitro, and oligonucleotide-coupled sheep cells were agglutinated by seropos. sera from lupus patients. In addition, oligonucleotide-KLH raised hemagglutinating antibody to denatured DNA in C57BL/6, DBA/2, or NZB mice, as well as IgG antibody as detected by solid phase RIA in C57BL/6 and DBA/2 mice. The significance of this method for the development of an **antigen**-specific therapy of SLE is discussed.

L19 ANSWER 8 OF 12 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2000:112689 BIOSIS
DOCUMENT NUMBER: PREV200000112689
TITLE: Glutaraldehyde (GA)-hapten adducts, but without a

carrier protein, for use in a specificity study on an antibody against a GA-conjugated hapten compound: Histamine monoclonal antibody (AHA-2) as a model.

AUTHOR(S): Fujiwara, Kunio [Reprint author]; Murata, Ikuo; Yagisawa, Shiroki; Tanabe, Toshio; Yabuuchi, Masahiko; Sakakibara, Ryuzo; Tsuru, Daisuke

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Nagasaki University, Bunkyo-machi 1-14, Nagasaki, 852-8131, Japan

SOURCE: Journal of Biochemistry (Tokyo), (Dec., 1999) Vol. 126, No. 6, pp. 1170-1174. print.
CODEN: JOBIAO. ISSN: 0021-924X.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 29 Mar 2000
Last Updated on STN: 3 Jan 2002

AB In our recent study on monoclonal antibodies (mAbs AHA-1-5) against **glutaraldehyde** (GA)-conjugated histamine (HA), we identified one mAb (AHA-2) which can detect neuronal HA in the rat brain with an immunocytochemistry method (ICC) (Fujiwara et al. (1999) J. Biochem. 126, 503-509). In the present study the specificity of AHA-2 mAb for use for ICC has been examined by means of competitive experiments involving HA and analogs, all of which had been allowed to react with GA followed by sodium borohydride, but not allowed to couple with the **carrier protein**. It was demonstrated that the antibody distinguished alterations in the chemical structure of the molecule, showing decreased immunoreactivity with all the GA-adducts of (R)-(-)-alpha-methylhistamine, 1- and 3-methylhistamine, L-histidine, and 1- and 3-methyl-L-histidine. On the other hand, AHA-1 mAb only reacted with GA-adducts of 3-MeHA (3-MeHA-GA) and HA (HA-GA), to almost the same degree, in relatively high concentration ranges. AHA-3, 4, and 5 mAbs reacted about 10- times more strongly with 1-MeHA-GA than with HA-GA, but reacted very little or not at all with the other analogs. These results may suggest that AHA-2 mAb recognized both the non-substituted imidazole and alpha-methine groups of a HA molecule in addition to the conjugation site of GA including the part(s) reduced with NaBH4, and especially the imidazole group more strictly than the other mAbs. This may partly explain why AHA-2, among the five AHA mAbs, can detect neuronal HA with an ICC method. The present ELISA method for GA-hapten adducts should be applicable to other antibodies against GA-conjugated biologically active amines or amino acids, thus allowing the study of antibody specificity for ICC more easily and accurately than was previously possible with hapten-protein **conjugates** as **antigens**.

L19 ANSWER 9 OF 12 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1997:312219 BIOSIS

DOCUMENT NUMBER: PREV199799620022

TITLE: Immunochemical assay for recognition of 2-S-glutathionyl acetate, a glutathione **conjugate** derived from 1,1-dichloroethylene-epoxide.

AUTHOR(S): Forkert, Poh-Gek [Reprint author]; Collins, Kathy S.; Dowsley, Taylor F.; Ross, Gregory M.

CORPORATE SOURCE: Dep. Anatomy Cell Biol., Queen's Univ., Kingston, ON K7L 3N6, Canada

SOURCE: Journal of Pharmacology and Experimental Therapeutics, (1997) Vol. 281, No. 3, pp. 1422-1430.
CODEN: JPETAB. ISSN: 0022-3565.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Jul 1997
Last Updated on STN: 4 Sep 1997

AB Cytotoxicities induced by 1,1-dichloroethylene (DCE) are ascribed to cytochrome P450-dependent metabolism to an epoxide. Conjugation of the DCE-epoxide with glutathione (GSH) results in the formation of the **conjugates** 2-S-glutathionyl acetate (GTA) and 2-(S-glutathionyl) acetyl glutathione (GAG); GAG undergoes hydrolysis to form GTA, and thus GTA is a major metabolite of DCE metabolism. Our objective is to develop an antiserum against the chemically synthesized GTA, and for immunization,

we have used a hapten that consists of GTA conjugated to bovine serum albumin (BSA) as the **carrier protein** and **glutaraldehyde** (GLUT) as a chemical cross-linker. The antisera were raised in rabbits and were characterized by using the following synthesized structural analogs: GTA, glycine-GLUT-BSA (GLY-GLUT-BSA), GTA-GLUT-ovalbumin (GTA-GLUT-OVB), GTA-1-ethyl-3-(3-dimethylaminopropyl) carbodiimide-BSA (GTA-EDC-BSA), TRIS-GLUT-BSA, glutathione-GLUT-BSA (GSH-GLUT-BSA). The enzyme-linked immunosorbent assay (ELISA) and slot immunoblotting were used to characterize the specificity of the antisera. Noncompetitive ELISA experiments showed that the reaction of the antiserum with the **antigen** was concentration-dependent. In the competitive ELISA, GTA-GLUT-BSA inhibited binding efficiently; in contrast, the unconjugated GTA did not inhibit binding to the **antigen**. Competitive studies with the other analogs indicated low or minimal reactivities with the antibodies, which were blocked by incubation with GLY-GLUT-BSA. However, there was residual reactivity with the **antigen** that was not competitively inhibited by either the GTA-EDC-BSA or the GSH-GLUT-BSA **conjugates**. Slot-blotting experiments confirmed the findings of the ELISA studies and revealed high specificity of the antiserum to detect the hapten. These results demonstrated the successful development of polyclonal antibodies to detect GTA and hence DCE-epoxide.

L19 ANSWER 10 OF 12 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1991:321381 BIOSIS
DOCUMENT NUMBER: PREV199192031896; BA92:31896
TITLE: ANTIBODIES AGAINST NEUROACTIVE AMINO ACIDS AND NEUROPEPTIDES I. A NEW TWO-STEP PROCEDURE FOR THEIR CONJUGATION TO **CARRIER PROTEINS** AND THE PRODUCTION OF AN ANTI-METHIONINE ENKEPHALIN ANTIBODY REACTIVE WITH GLUTARALDEHYDE-FIXED TISSUES.
AUTHOR(S): MEYER K-H [Reprint author]; BEHRINGER D M; VEH R W
CORPORATE SOURCE: ABT NEUROANATOMIE, RUHR-UNIV BOCHUM, UNIV 150, D-4630 BOCHUM, W GER
SOURCE: Journal of Histochemistry and Cytochemistry, (1991) Vol. 39, No. 6, pp. 749-760.
CODEN: JHCYAS. ISSN: 0022-1554.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 15 Jul 1991
Last Updated on STN: 16 Jul 1991

AB We developed a new two-step procedure to couple haptens to bovine serum albumin (BSA) via **glutaraldehyde** (GA). After activaation of BSA with excess GA and removal of unreacted GA, the hapten was bound to the activated protein in a second step. This two-step procedure is easy to use, the desired molecular ratio of coupled hapten to protein is conveniently adjusted, and no visible precipitation of the **conjugate** is detected. Using a low peptide concentration, nearly 50% of the inserted haptens are bound to the protein, and unbound expensive peptide can be recovered after Sephadex chromatography. Antisera to neuroactive amino acids (GABA, glycine, and glutamate) and neuropeptides (Met-enkephalin) were prepared by immunization of rabbits with these **conjugates**. Immunological analysis of immune sera by dot-blot and ELISA techniques and subsequent removal of crossreactivities by solid-phase adsorption yielded monospecific antibodies, which were further purified by affinity chromatography. The immunocytochemical specificities of these purified antibodies were verified in adjacent sections of GA-fixed rat spinal cord. Pre-embedding staining with anti-Met-enkephalin in combination with post-embedding staining for amino acids such as GABA allowed double staining of the two **antigens** in a single semi-thin section.

L19 ANSWER 11 OF 12 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1985:352376 BIOSIS

DOCUMENT NUMBER: PREV198580022368; BA80:22368
TITLE: SYNTHETIC PEPTIDES AS **ANTIGENS** PITFALLS OF CONJUGATION METHODS.
AUTHOR(S): BRIAND J P [Reprint author]; MULLER P; VAN REGENMORTEL M H V
CORPORATE SOURCE: INST BIOLOGIE MOLECULAIRE ET CELLULARIE DU CNRS, 15 RUE DESCARTES, 67000 STRASBOURG, FRANCE
SOURCE: Journal of Immunological Methods, (1985) Vol. 78, No. 1, pp. 59-70.
CODEN: JIMMBG. ISSN: 0022-1759.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Peptide-carrier **conjugates** were prepared using 9 different synthetic peptides, 3 **carrier proteins** and 4 coupling reagents. Residues of the **carrier protein** that were modified by different coupling reagents (e.g., **glutaraldehyde,** carbodiimides, bis-diazotized benzidine) elicit specific antibodies that reacted with unrelated **carrier proteins** treated with the same coupling agent. To demonstrate the presence of peptide antibodies in an antiserum raised against a peptide-carrier **conjugate,** it was necessary to use as **antigen** the peptide coupled to another carrier by means of a different coupling agent. Some of the commonly used conjugation methods lead to **conjugates** of insufficient stability and sometimes also altered the antigenic properties of the peptide moiety. These difficulties can be overcome by additional control experiments designed to test the quality and the peptide-carrier **conjugates.**

L19 ANSWER 12 OF 12 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1984:283247 BIOSIS
DOCUMENT NUMBER: PREV198478019727; BA78:19727
TITLE: CONJUGATION OF DNA FRAGMENTS TO PROTEIN CARRIERS BY GLUTARALDEHYDE IMMUNOGENICITY OF OLIGO NUCLEOTIDE HEMO CYANIN **CONJUGATES.**
AUTHOR(S): BOREL H [Reprint author]; SASAKI T; STOLLAR D B; BOREL Y
CORPORATE SOURCE: CHILDRENS HOSP MED CENT, IMMUNOL DIV, 300 LONGWOOD AVE, BOSTON, MASS 02115, USA
SOURCE: Journal of Immunological Methods, (1984) Vol. 67, No. 2, pp. 289-302.
CODEN: JIMMBG. ISSN: 0022-1759.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The practical realization of the concept of specific immunotherapy for systemic lupus erythematosus (SLE) was hampered by an inability to link DNA fragments to **carrier protein.** A novel technique is described, in which **glutaraldehyde** is the linking agent. A 2-stage method was used to link oligonucleotides to a soluble protein carrier, such as keyhole limpet hemocyanin (KLH) or human gamma globulin (HGG), whereas a 1-stage technique was sufficient to link oligonucleotides to sheep red cells. Both the UV absorbance spectrum and diphenylamine assay demonstrated that oligonucleotides were coupled to soluble protein. The **conjugate** of oligonucleotide to protein carrier appears to be recognized by anti-DNA antibody since oligonucleotide linked to either KLH or HGG inhibited the binding of anti-DNA antibody in vitro, and oligonucleotide-coupled sheep cells are agglutinated by seropositive sera from lupus patients. Oligonucleotide-KLH raised hemagglutinating antibody to denatured DNA in C57BL/6, DBA/2 or NZB mice, as well as IgG antibody as detected by SPRIA [solid phase radioimmunoassay] in C57BL/6 and DBA/2 mice. The significance of this new method for the development of an **antigen** specific therapy of SLE is discussed.

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jun 24, 2005 (20050624/UP).

=> antigen (s) BSA
            0 ANTIGEN
            0 BSA
L22         0 ANTIGEN (S) BSA

=> antigen (l) BSA
            0 ANTIGEN
            0 BSA
L23         0 ANTIGEN (L) BSA

=> file caplus
COST IN U.S. DOLLARS                             SINCE FILE      TOTAL
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FULL ESTIMATED COST                                    0.48     129.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)       SINCE FILE      TOTAL
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FILE COVERS 1907 - 30 Jun 2005  VOL 143 ISS 1
FILE LAST UPDATED: 29 Jun 2005  (20050629/ED)

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  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> antigen (P) BSA
        274034 ANTIGEN
        219028 ANTIGENS
        343644 ANTIGEN
                 (ANTIGEN OR ANTIGENS)
         14249 BSA
            71 BSAS
         14286 BSA
                 (BSA OR BSAS)
```

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L24        1761 ANTIGEN (P) BSA

=> conjugate and L24
          61056 CONJUGATE
          54015 CONJUGATES
          94225 CONJUGATE
                  (CONJUGATE OR CONJUGATES)
L25         520 CONJUGATE AND L24

=> HCV and L25
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             17 HCVS
           9302 HCV
                  (HCV OR HCVS)
L26           0 HCV AND L25

=> cross (s) link
         463480 CROSS
          15864 CROSSES
         477185 CROSS
                  (CROSS OR CROSSES)
          52702 LINK
          25796 LINKS
          74899 LINK
                  (LINK OR LINKS)
L27        8980 CROSS (S) LINK

=> L27 and L25
L28           0 L27 AND L25

=> L25 and HCV
           9298 HCV
             17 HCVS
           9302 HCV
                  (HCV OR HCVS)
L29           0 L25 AND HCV

=> solid (w) phase
         966755 SOLID
         274057 SOLIDS
        1169197 SOLID
                  (SOLID OR SOLIDS)
        1589200 PHASE
         335164 PHASES
        1730848 PHASE
                  (PHASE OR PHASES)
L30      102950 SOLID (W) PHASE

=> L25 and L30
L31          54 L25 AND L30

=> HCV and L31
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             17 HCVS
           9302 HCV
                  (HCV OR HCVS)
L32           0 HCV AND L31

=> Particle
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         730947 PARTICLES
L33     1098966 PARTICLE
                  (PARTICLE OR PARTICLES)

=> L31 and L33
L34           0 L31 AND L33
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=> polystyrene and L31
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          4199 POLYSTYRENES
        137602 POLYSTYRENE
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L35           7 POLYSTYRENE AND L31

=> copolymer and L31
        560534 COPOLYMER
        181945 COPOLYMERS
        608300 COPOLYMER
                 (COPOLYMER OR COPOLYMERS)
L36           0 COPOLYMER AND L31

=> erythrocyte and L31
         92711 ERYTHROCYTE
         79035 ERYTHROCYTES
        123964 ERYTHROCYTE
                 (ERYTHROCYTE OR ERYTHROCYTES)
L37           0 ERYTHROCYTE AND L31

=> gelating and L31
           588 GELATING
L38           0 GELATING AND L31

=> D L35 IBIB ABS 1-7

L35  ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1999:297246  CAPLUS
DOCUMENT NUMBER:          130:293625
TITLE:                    Method for reducing non-specific binding in
                          surface-bound immunoassays by using polyethylene
                          glycol derivatized biomolecules
INVENTOR(S):              Hornauer, Hans; Lenz, Helmut; Sluka, Peter; Karl,
                          Johann; Mutter, Wolfgang
PATENT ASSIGNEE(S):       Roche Diagnostics GmbH, Germany
SOURCE:                   Eur. Pat. Appl., 15 pp.
                          CODEN: EPXXDW
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     EP 913690             A2    19990506    EP 1998-120756           19981102
     EP 913690             A3    20030326
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     DE 19748489           A1    19990506    DE 1997-19748489         19971103
     US 2002052009         A1    20020502    US 1998-184043           19981102
     JP 11211727           A2    19990806    JP 1998-313811           19981104
PRIORITY APPLN. INFO.:                       DE 1997-19748489    A    19971103
AB   The invention concerns the reduction of non-specific binding during
     immunoassays by immobilizing the analyte specific reactant and an analyte
     non-specific reactant coupled to polyethylene glycol; incubating the probe
     on that surface; and detecting the amount of analyte.  Further versions of
     the invention include the coupling of polyethylene glycol to labeled
     antibodies or antigens, application in sandwich assays and in
     array-type quantifications.  The conjugates are of the general
     formulas: Pr[-(AOn)T]m; Pr-I-[-(AOn)T]m; where P = biotin or biotin
     derivs.; I = inert support; r = 1-10; AO = (C2-C3)-alkylene oxide; n =
     5-500; T = OH, C1-C4-alkoxy, C1-C4-acyl; m = 1-10.  According to another
     versions conjugates are: F[-(AOn)T]m; Pr'-Fr'[-(AOn)T]m;
     Ms-F"[-(AOn)T]m; where F = lectins, streptavidin, avidin,
     anti-hapten-antibodies; P' = label for the reactant; F = biomol.; r =
     1-10; Ms = label; s = 1-10; F" = soluble biomol., reacts with the analyte.
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The invention relates to assay kits containing the components. The method can be applied in **solid phase** bound hybridization reactions. Thus biotin-PEG, biotin-methoxypolyethylene glycol, and streptavidin-PEG **conjugates** were prepared **Polystyrene** surface was coated with **BSA**-streptavidin **conjugate**; biotinylated antibodies to TSH were immobilized onto the surface; to avoid non-specific binding the surface was treated with biotin-PEG **conjugate**. Using digoxigenin labeled p24 **conjugate** or anti-IgG-digoxigenin **conjugate** followed by a latex agglutination assay it was shown that background signals were one fifth or less when using biotin-PEG **conjugate** compared to the control.

L35 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:759676 CAPLUS
DOCUMENT NUMBER: 128:112548
TITLE: Characterization of an enzyme linked immunosorbent assay for Aflatoxin B1 based on commercial reagents
AUTHOR(S): Pesavento, Maria; Domagala, Slavomir; Baldini, Enrica; Cucca, Lucia
CORPORATE SOURCE: Instituto di Scienze Matematiche, Fisiche e Chimiche, University of Milano, Milan, Italy
SOURCE: Talanta (1997), 45(1), 91-104
CODEN: TLNTA2; ISSN: 0039-9140
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two indirect ELISA have been investigated for the determination of Aflatoxin B1, employing only reagents com. available, whose composition is not exactly known. In both cases the **antigen** (Aflatoxin B1-**BSA**) was coated to the **solid phase** (**polystyrene** microtiter plates). In one procedure the specific antibody was a **conjugate** with peroxidase, while in the other one it was not conjugated, and a second antibody labeled with alkaline phosphatase was used. A simple model was employed to characterize the equilibrium, which is of help also if the exact composition of the immunoreagents is not known, and allows to predict the shape and position of the competition curve. The factors which determine the dynamic range were found to be the affinity constant the complex in the solid and the amount of **antigen** in the solid, and the affinity constant of the complex in solution phase. Useful aspects of the **antigen**-antibody complexation equilibrium in the **solid phase** were investigated by ELISA at zero concentration of **antigen** in solution, obtaining csc* and K'fTn. The equilibrium in solution were studied by competition ELISA, obtaining K, the affinity constant of the **antigen** -antibody complex in solution Similar results were obtained with the two procedures, for instance the affinity constant in solution was 2 + 108. A procedure for the determination of Aflatoxin B1 in food samples was developed.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L35 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:529454 CAPLUS
DOCUMENT NUMBER: 117:129454
TITLE: The physical and functional behavior of capture antibodies adsorbed on **polystyrene**
AUTHOR(S): Butler, J. E.; Ni, L.; Nessler, R.; Joshi, K. S.; Suter, M.; Rosenberg, B.; Chang, J.; Brown, W. R.; Cantarero, L. A.
CORPORATE SOURCE: Dep. Microbiol., Univ. Iowa, Iowa City, IA, 52242, USA
SOURCE: Journal of Immunological Methods (1992), 150(1-2), 77-90
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Six monoclonal and 2 polyclonal antibodies to fluorescein (FLU) were affinity purified and immobilized on Immulon 2 **polystyrene** as capture antibodies (CAbs): (a) by passive adsorption at pH 9.6, (b) via a streptavidin bridge to a biotinylated carrier mol., and (c) via an

antiglobulin which had been previously adsorbed passively to the **polystyrene**. Data show that <3.0% of the binding sites of monoclonal CAbs and .apprx.5-10% of those of polyclonal CAbs were capable of capturing **antigen** (FLU4.2-**BSA**) after passive adsorption. Immobilization of CAbs via an antiglobulin or a streptavidin bridge, resulted in the preservation of antibody binding sites to >70% for some monoclonals although immobilization via the streptavidin bridge resulted in the highest number of functional sites/well. The data presented are consistent with studies on other adsorbed proteins which demonstrate that passive adsorption on **polystyrene** results in the loss of protein function. Furthermore, these data show that generally less than half of the binding sites of antibodies available in solution are available after **solid-phase** immobilization even when nonadsorptive methods are employed. Some polyclonal anti-FLU also have lower average avidity following passive adsorption compared with CAbs immobilization via a streptavidin bridge. Immunochem. studies revealed that adsorbed polyclonal CAbs performed like monoclonals when tested with multivalent **antigens** (FLU10-IgA) but in an expected heterogeneous manner in Scatchard plots when tested using univalent FLU-insulin. This observation implied crosslinking of immobilized CAbs by the multivalent **antigen**. Because only 5-10% of the adsorbed polyclonal CAbs are active, the survivors must be nonrandomly distributed in clusters to explain the crosslinking. This was confirmed by SEM which gave rise to the hypothesis that antibodies which retain activity after adsorption, are those present in clusters, i.e., the functional adsorbed CAb is an antibody cluster. Data presented in this report on the behavior of adsorbed CAbs, and reviewed from the work of others for various adsorbed proteins, indicate that the method of passive adsorption at pH 9.6, which is widely used in popular microtiter ELISAs, and which has in many ways revolutionized immunoassay, is a method of protein denaturation. Assayists that utilize passive adsorption of proteins on hydrophobic supports as part of their research need to be cognizant of this phenomenon, while inventors of immunoassays should develop alternative methods of immobilization which do not destroy 90% of the functional activity of **solid-phase** reactant.

L35 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1987:16761 CAPLUS
DOCUMENT NUMBER: 106:16761
TITLE: Monoclonal antibodies to chlorinated dibenzo-p-dioxins
AUTHOR(S): Kennel, S. J.; Mason, G.; Safe, S.
CORPORATE SOURCE: Div. Biol., Oak Ridge Natl. Lab., Oak Ridge, TN, 37830, USA
SOURCE: Chemosphere (1986), 15(9-12), 2007-10
CODEN: CMSHAF; ISSN: 0045-6535
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A thyroglobulin **conjugate** of dioxin (thyroglobulin-2 adipamide, 3,7,8-trichlorodibenzo-p-dioxin) (TG-TCDD) was used to immunize BALB/c mice. Hybridomas were produced by cell fusion between immune spleen cells and mouse myelomas SP2/0, P3, or NS1. In order to screen the thousands of resultant cultures for production of monoclonal antibodies (MoAb), a rapid, **solid phase** RIA for antibody to dioxins was developed. This involved attaching bovine serum albumin (**BSA**) coupled with trichlorodibenzo-p-dioxin (**BSA**-TCDD) to **polystyrene** plates to be used as a **solid phase** target **antigen** for reaction with MoAb. Fourteen hybridomas were identified that produced MoAb reacting with **BSA**-TCDD but not with **BSA** alone. Antibodies were tested for binding to **BSA**-aniline to eliminate those with limited binding specificity. Initial studies indicated that most MoAbs bound **BSA**-aniline as well as **BSA**-TCDD. More detailed analyses indicated that while most MoAbs showed reaction with **BSA**-aniline, 2 showed preferential binding to **BSA**-TCDD of >200-fold whereas rabbit antisera demonstrated only a 5-fold discrimination. MoAb 391-1B was purified from mouse ascites fluid and after radioiodination, was tested for direct binding to **BSA**-TCDD or **BSA**-aniline.

125I-labeled MoAb showed no binding to **BSA**-aniline while demonstrating high binding to **BSA**-TCDD (Ka = 4.5 + 108 L/mol).

L35 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:422642 CAPLUS
DOCUMENT NUMBER: 105:22642
TITLE: Adsorption-desorption of antigen to **polystyrene** plates used in ELISA
AUTHOR(S): Nieto, A.; Gaya, A.; Moreno, C.; Jansa, M.; Vives, J.
CORPORATE SOURCE: Immunol. Serv., Clin. Prov. Hosp., Barcelona, 08036, Spain
SOURCE: Annales de l'Institut Pasteur/Immunology (1986), 137C(2), 161-72
CODEN: AIPIEP; ISSN: 0769-2625
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Since ELISA reliability depends to a great extent upon **solid-phase** reagent concentration and stability, the authors sought to analyze the influence of exptl. conditions during ELISA performance on the adsorption/desorption of proteins to microplates. The effect upon desorption of several exptl. parameters (**antigen** concentration, antibody concentration and affinity, washings, **conjugate** and inhibitor incubations) and quant. treatment of protein-**polystyrene** adsorption were analyzed. The adsorption to **polystyrene** microplates was studied with a hapten-conjugated protein arsonate conjugated bovine serum albumin (**BSA**-Ar36) in order to facilitate the anal. of the influence of antibody affinity on desorption during ELISA. Both serum and washings promote desorption but do not affect ELISA reliability. **Polystyrene** plates adsorb **BSA**-Ar36 according to the Langmuir isotherm. The adsorption constant was 2.1 + 108 L/mol and maximal surface concentration of protein on **solid phase** was 1.8 + 10-7 g/cm2. Although desorption was present, it did not affect the reliability of results of either direct or inhibition ELISA, because it was not dependent on the composition of the sample.

L35 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1986:181193 CAPLUS
DOCUMENT NUMBER: 104:181193
TITLE: Monoclonal antibodies to chlorinated dibenzo-p-dioxins
AUTHOR(S): Kennel, Stephen J.; Jason, Casey; Albro, Phillip W.; Mason, Grant; Safe, Stephen H.
CORPORATE SOURCE: Biol. Div., Oak Ridge Natl. Lab., Oak Ridge, TN, 37831, USA
SOURCE: Toxicology and Applied Pharmacology (1986), 82(2), 256-63
CODEN: TXAPA9; ISSN: 0041-008X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A thyroglobulin **conjugate** of dioxin [thyroglobulin-3,7,8-trichlorodibenzo-p-dioxin 2-adipamide [101705-34-4] (TG-I)] was used to immunize BALB/c mice. Hybridomas were produced by cell fusion between immune spleen cells and mouse myelomas SP2/0, P3, or NS1. To screen the thousands of resultant cultures for production of monoclonal antibodies (MoAb), a rapid, **solid-phase** radioimmunoassay for antibody to dioxins was developed. This procedure involved attaching bovine serum albumin coupled with I (**BSA**-I) to **polystyrene** plates to be used as a **solid-phase** target **antigen** for reaction with MoAb. Fourteen hybridomas were identified that produced MoAb reacting with **BSA**-I but not with **BSA** alone. Antibodies were tested for binding to **BSA**-aniline to eliminate those with limited binding specificity. Initial studies indicated that most MoAbs bound **BSA**-aniline as well as **BSA**-I. More detailed analyses indicated that while most MoAbs showed some reaction with **BSA**-aniline, 2 showed preferential binding to **BSA**-I of >200-fold whereas rabbit antisera

demonstrated only a 5-fold discrimination. MoAb 391-1B was purified from mouse ascites fluid and after radioiodination, was tested for direct binding to **BSA**-I or **BSA**-aniline. [125I]MoAb 391-1B showed no significant binding to **BSA**-aniline while demonstrating high binding to **BSA**-I (Ka = 4.5 + 108 L/mol).

L35 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1982:48630 CAPLUS
DOCUMENT NUMBER: 96:48630
TITLE: **Conjugate** used for immunological assays by chemiluminescence
INVENTOR(S): Forgione, Peter Salvatore; Henderson, William Arthur, Jr.
PATENT ASSIGNEE(S): Fisher Scientific Co., USA
SOURCE: Fr. Demande, 17 pp.
CODEN: FRXXBL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2468125	A1	19810430	FR 1980-22282	19801017
FR 2468125	B1	19850823		
GB 2063469	A	19810603	GB 1980-33401	19801016
GB 2063469	B2	19830720		
DE 3039157	A1	19810827	DE 1980-3039157	19801016
CA 1135620	A1	19821116	CA 1980-362570	19801016
JP 56096249	A2	19810804	JP 1980-144516	19801017
US 4375972	A	19830308	US 1981-328007	19811207
PRIORITY APPLN. INFO.:			US 1979-85601 A	19791017

AB A method and reagent are described for the rapid and sensitive immunol. determination of **antigens**, antibodies, and other substances in biol. fluids by chemiluminescence. The immunol. reagent consists of an **antigen** (e.g. hormone, plasma protein, or hapten) or antibody conjugated to a metalloporphyrin indicator (e.g. hemin, Hb, cytochrome c, catalase) by cyanuric chloride, acrylic chloride, or glutaraldehyde. The method can be used either for **solid-phase** or sandwich immunoassays. Thus, human Hb was determined by fixing purified anti-Hb antibody on **polystyrene** tubes for 1 h at 37°, incubating with bovine serum albumin (**BSA**) for 30 min at 37°, washing the tubes with **BSA** containing Tween in buffered saline, and incubating in the absence and presence of human Hb for 30 min at room temperature The tubes then were washed with **BSA**-Tween, and the chemiluminescence was measured. The latter was greater in the presence of Hb and proportional to the Hb concentration The method was also used for the determination of IgG in blood serum and for the determination of myoglobin and human chorionic gonadotropin.

```
=> conjugated (w) antigen
         95898 CONJUGATED
        274034 ANTIGEN
        219028 ANTIGENS
        343644 ANTIGEN
                  (ANTIGEN OR ANTIGENS)
L39        132 CONJUGATED (W) ANTIGEN

=> BSA and L39
         14249 BSA
            71 BSAS
         14286 BSA
                  (BSA OR BSAS)
L40         13 BSA AND L39

=> HCV and L39
```

```
          9298 HCV
            17 HCVS
          9302 HCV
                 (HCV OR HCVS)
L41          0 HCV AND L39

=> ovalbumin and L39
         13682 OVALBUMIN
          5697 OVALBUMINS
         15989 OVALBUMIN
                 (OVALBUMIN OR OVALBUMINS)
L42         11 OVALBUMIN AND L39

=> hemocyanin and L39
          5903 HEMOCYANIN
          3811 HEMOCYANINS
          6623 HEMOCYANIN
                 (HEMOCYANIN OR HEMOCYANINS)
L43          7 HEMOCYANIN AND L39

=> solid and L40
        966755 SOLID
        274057 SOLIDS
       1169197 SOLID
                 (SOLID OR SOLIDS)
L44          1 SOLID AND L40

=> solid and L42
        966755 SOLID
        274057 SOLIDS
       1169197 SOLID
                 (SOLID OR SOLIDS)
L45          1 SOLID AND L42

=> solid and L43
        966755 SOLID
        274057 SOLIDS
       1169197 SOLID
                 (SOLID OR SOLIDS)
L46          0 SOLID AND L43

=> D L45 IBIB abs

L45  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1993:18874  CAPLUS
DOCUMENT NUMBER:          118:18874
TITLE:                    Use of a mixture of conjugated and unconjugated
                          solid phase binding reagent to enhance the
                          performance of immunoassays
INVENTOR(S):              Lambert, Stephen B.
PATENT ASSIGNEE(S):       du Pont de Nemours, E. I., and Co., USA
SOURCE:                   U.S., 6 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     --------------       ----   --------    --------------------    --------
     US 5164299            A     19921117    US 1990-497062          19900320
PRIORITY APPLN. INFO.:                       US 1990-497062          19900320
AB   The title reacting binding reagent is a mixture of carrier-conjugated and
     unconjugated binding reagent and is immobilized on a solid
     phase.  The reagent is used for enhancing the detection of analyte in a
     liquid sample by solid phase heterogeneous or homogeneous
     immunoassay.  A mixture of unconjugated and bovine serum albumin-conjugated
```

recombinant Hepatitis B core antigen (rHBcAg) was used to improve the specificity of a competitive immunoassay of rHBcAg.

=> D L44 IBIB ABS

L44 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:531921 CAPLUS
DOCUMENT NUMBER: 121:131921
TITLE: Immunorecognition of ring skeleton of taxanes by chicken egg yolk antibodies
AUTHOR(S): Concetti, Antonio; Ripani, Elisabetta; Barboni, Luciano; Torregiani, Elisabetta; Bombardelli, Ezio; Gariboldi, Pierluigi; Venanzi, Franco M.
CORPORATE SOURCE: Dip. Biol., M.C.A., Camerino, I-63023, Italy
SOURCE: Biological Chemistry Hoppe-Seyler (1994), 375(6), 419-23
CODEN: BCHSEI; ISSN: 0177-3593
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Anti-10 deacetylbaccatin III (DAB) antibodies (IgY) were elicited in hens immunized with a succinyl-DAB/**BSA** conjugate and extracted from egg yolk. As shown by indirect competitive inhibition enzyme immunoassay (CIEIA), the addition of free-DAB competitively inhibited the binding of affinity purified anti-DAB IgY to DAB/**BSA solid** phase **conjugated antigen**. The assay enabled the detection of DAB in concns. as low as 7.5 ng/mL (13.7 nm DAB), whereas anti-DAB IgY did not react with taxol even at a concentration a thousand times higher. The structural requirements of the diterpenoid nucleus for binding to IgY were considered on the basis of the levels of cross-reaction found with 10 authentic taxanes. The results indicate that anti-DAB IgY represents the first high affinity antibody produced capable of recognizing the ring skeleton of taxol precursors.

=> solid and l40
966755 SOLID
274057 SOLIDS
1169197 SOLID
(SOLID OR SOLIDS)
L47 1 SOLID AND L40

=> D L47 IBIIB ABs
'IBIIB' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers; SCAN must be entered on the same line as the DISPLAY, e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, IPC, and NCL

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

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ENTER DISPLAY FORMAT (BIB):IBIB

L47 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:531921 CAPLUS
DOCUMENT NUMBER: 121:131921
TITLE: Immunorecognition of ring skeleton of taxanes by chicken egg yolk antibodies
AUTHOR(S): Concetti, Antonio; Ripani, Elisabetta; Barboni, Luciano; Torregiani, Elisabetta; Bombardelli, Ezio; Gariboldi, Pierluigi; Venanzi, Franco M.
CORPORATE SOURCE: Dip. Biol., M.C.A., Camerino, I-63023, Italy
SOURCE: Biological Chemistry Hoppe-Seyler (1994), 375(6), 419-23
CODEN: BCHSEI; ISSN: 0177-3593
DOCUMENT TYPE: Journal
LANGUAGE: English

=> D L47 IBIB ABS

L47 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:531921 CAPLUS
DOCUMENT NUMBER: 121:131921
TITLE: Immunorecognition of ring skeleton of taxanes by chicken egg yolk antibodies
AUTHOR(S): Concetti, Antonio; Ripani, Elisabetta; Barboni, Luciano; Torregiani, Elisabetta; Bombardelli, Ezio; Gariboldi, Pierluigi; Venanzi, Franco M.
CORPORATE SOURCE: Dip. Biol., M.C.A., Camerino, I-63023, Italy
SOURCE: Biological Chemistry Hoppe-Seyler (1994), 375(6),

419-23
CODEN: BCHSEI; ISSN: 0177-3593
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Anti-10 deacetylbaccatin III (DAB) antibodies (IgY) were elicited in hens immunized with a succinyl-DAB/**BSA** conjugate and extracted from egg yolk. As shown by indirect competitive inhibition enzyme immunoassay (CIEIA), the addition of free-DAB competitively inhibited the binding of affinity purified anti-DAB IgY to DAB/**BSA solid** phase **conjugated antigen**. The assay enabled the detection of DAB in concns. as low as 7.5 ng/mL (13.7 nm DAB), whereas anti-DAB IgY did not react with taxol even at a concentration a thousand times higher. The structural requirements of the diterpenoid nucleus for binding to IgY were considered on the basis of the levels of cross-reaction found with 10 authentic taxanes. The results indicate that anti-DAB IgY represents the first high affinity antibody produced capable of recognizing the ring skeleton of taxol precursors.

=> HCV
9298 HCV
17 HCVS
L48 9302 HCV
(HCV OR HCVS)

=> L1 and l48
L49 1 L1 AND L48

=> BSA and L48
14249 BSA
71 BSAS
14286 BSA
(BSA OR BSAS)
L50 12 BSA AND L48

=> conjugate and L50
61056 CONJUGATE
54015 CONJUGATES
94225 CONJUGATE
(CONJUGATE OR CONJUGATES)
L51 0 CONJUGATE AND L50

=> D L49 IBIB ABS

L49 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:652870 CAPLUS
DOCUMENT NUMBER: 139:250375
TITLE: Protein chip for detecting blood bank sampling-induced infection
INVENTOR(S): Zhang, Tao; Li, Bin; Peng, Yongji; Li, Hongmei; Ren, Yiping
PATENT ASSIGNEE(S): Jingtai Biological Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1373365	A	20021009	CN 2001-142625	20011211

PRIORITY APPLN. INFO.: CN 2001-142625 20011211
AB The protein chip for detecting blood bank sampling-induced infection via simultaneous detection of multiple **antigens** is prepared by fixing the proteins (such as anti-hepatitis B surface **antigen** (HBsAg)

antibody, hepatitis C virus **antigen** (HCVAg) fragment, type I autoimmune-deficient virus **antigen** (ADVAg) fragment, type II ADVAg fragment, and syphilis **antigen** fragment), their pos. refs. (HBsAg fragment, anti-**HCV** surface **antigen** antibody fragment, anti-type I ADVAg fragment, anti-type II ADVAg fragment, and anti-syphilis antibody, resp.), and neg. reference (human serum albumin) on the **glutaraldehyde**-activated carrier (such as glass, cellulose acetate membrane, cellulose nitrate membrane, nylon membrane, Si sheet, steel sheet, or ceramic sheet).

```
=> "solid phase
MISMATCHED QUOTE '"SOLID'
Quotation marks (or apostrophes) must be used in pairs,
one before and one after the expression you are setting
off or masking.

=> "solid support'
MISMATCHED QUOTE '"SOLID'
Quotation marks (or apostrophes) must be used in pairs,
one before and one after the expression you are setting
off or masking.

=> "solid support"
        966755 "SOLID"
        274057 "SOLIDS"
       1169197 "SOLID"
                 ("SOLID" OR "SOLIDS")
        418105 "SUPPORT"
        117143 "SUPPORTS"
        496898 "SUPPORT"
                 ("SUPPORT" OR "SUPPORTS")
L52       9577 "SOLID SUPPORT"
                 ("SOLID"(W)"SUPPORT")

=> "polystyren latx particle"
            45 "POLYSTYREN"
             2 "POLYSTYRENS"
            47 "POLYSTYREN"
                 ("POLYSTYREN" OR "POLYSTYRENS")
             3 "LATX"
        651062 "PARTICLE"
        730947 "PARTICLES"
       1098966 "PARTICLE"
                 ("PARTICLE" OR "PARTICLES")
L53          0 "POLYSTYREN LATX PARTICLE"
                 ("POLYSTYREN"(W)"LATX"(W)"PARTICLE")

=> "polystyren latex particle"
            45 "POLYSTYREN"
             2 "POLYSTYRENS"
            47 "POLYSTYREN"
                 ("POLYSTYREN" OR "POLYSTYRENS")
         66692 "LATEX"
         16515 "LATEXES"
          1077 "LATICES"
         69630 "LATEX"
                 ("LATEX" OR "LATEXES" OR "LATICES")
        651062 "PARTICLE"
        730947 "PARTICLES"
       1098966 "PARTICLE"
                 ("PARTICLE" OR "PARTICLES")
L54          1 "POLYSTYREN LATEX PARTICLE"
                 ("POLYSTYREN"(W)"LATEX"(W)"PARTICLE")

=> polystyren and L48
            45 POLYSTYREN
```

```
             2 POLYSTYRENS
            47 POLYSTYREN
                 (POLYSTYREN OR POLYSTYRENS)
L55          0 POLYSTYREN AND L48

=> polystyrene and L48
        136792 POLYSTYRENE
          4199 POLYSTYRENES
        137602 POLYSTYRENE
                 (POLYSTYRENE OR POLYSTYRENES)
L56         28 POLYSTYRENE AND L48

=> copolymer (s) particle
        560534 COPOLYMER
        181945 COPOLYMERS
        608300 COPOLYMER
                 (COPOLYMER OR COPOLYMERS)
        651062 PARTICLE
        730947 PARTICLES
       1098966 PARTICLE
                 (PARTICLE OR PARTICLES)
L57      25759 COPOLYMER (S) PARTICLE

=> L48 and L57
L58          1 L48 AND L57

=> erythrocyte and L48
         92711 ERYTHROCYTE
         79035 ERYTHROCYTES
        123964 ERYTHROCYTE
                 (ERYTHROCYTE OR ERYTHROCYTES)
L59         40 ERYTHROCYTE AND L48

=> gelatin (w) particle and L48
         65615 GELATIN
         23402 GELATINS
         72990 GELATIN
                 (GELATIN OR GELATINS)
        651062 PARTICLE
        730947 PARTICLES
       1098966 PARTICLE
                 (PARTICLE OR PARTICLES)
           209 GELATIN (W) PARTICLE
L60          4 GELATIN (W) PARTICLE AND L48

=> L52 and l48
L61         19 L52 AND L48

=> core and NS1
SYSTEM LIMITS EXCEEDED - SEARCH ENDED
The search profile you entered was too complex or gave too many
answers.  Simplify or subdivide the query and try again.  If you have
exceeded the answer limit, enter DELETE HISTORY at an arrow prompt
(=>) to remove all previous answers sets and begin at L1.  Use the
SAVE command to store any important profiles or answer sets before
using DELETE HISTORY.

=> "core antigen"
        283322 "CORE"
         61623 "CORES"
        313638 "CORE"
                 ("CORE" OR "CORES")
        274034 "ANTIGEN"
        219028 "ANTIGENS"
        343644 "ANTIGEN"
                 ("ANTIGEN" OR "ANTIGENS")
L62       1500 "CORE ANTIGEN"
```

("CORE"(W)"ANTIGEN")

=> L61 and L62
L63 6 L61 AND L62

=> envelope and L61
51073 ENVELOPE
9120 ENVELOPES
56423 ENVELOPE
(ENVELOPE OR ENVELOPES)
L64 1 ENVELOPE AND L61

=> L62 and L59
L65 1 L62 AND L59

=> envelope and L59
51073 ENVELOPE
9120 ENVELOPES
56423 ENVELOPE
(ENVELOPE OR ENVELOPES)
L66 1 ENVELOPE AND L59

=> D L66 IBIB ABS

L66 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:905910 CAPLUS
DOCUMENT NUMBER: 141:378844
TITLE: Inducing a T cell response with recombinant antigen-expressing pestivirus replicons or recombinant pestivirus replicon-transfected dendritic cells, and therapeutic uses
INVENTOR(S): Rehermann, Barbara; Racanelli, Vito; Behrens, Sven-Erik; Tautz, Norbert
PATENT ASSIGNEE(S): The Government of the United States of America as Represented by the Secretary of Health and Human Services, USA; Justus-Liebig-Universitaet Giessen
SOURCE: PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092386	A2	20041028	WO 2004-US11018	20040410
WO 2004092386	A3	20050512		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-462165P P 20030411
US 2003-463097P P 20030414

AB The present disclosure relates to compds. and methods of generating T cell-mediated immunity, particularly T cell-mediated immunity to Hepatitis C Virus (**HCV**), Respiratory Syncytial Virus (RSV), Human Immunodeficiency Virus (HIV), Mycobacterium tuberculosis, Plasmodium falciparum, and tumors. The method includes (a) administering to the subject an amount of an antigen presenting cell (such as dendritic cell) sufficient to induce the response in the subject, wherein the antigen

presenting cell expresses the recombinant antigen from a pestivirus replicon or (b) directly administering the recombinant antigen expressing replicon in form of RNA or DNA.

=> D L65 IBIB ABS

L65 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:293595 CAPLUS
DOCUMENT NUMBER: 120:293595
TITLE: Thio group-containing antigen or peptide treated with reducing agent for antibody determination
INVENTOR(S): Takei, Toshinori; Inoe, Juzo; Asahina, Aki; Tokita, Susumu
PATENT ASSIGNEE(S): Dainabot Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06074956	A2	19940318	JP 1992-270684	19920828
JP 3225468	B2	20011105		
PRIORITY APPLN. INFO.:			JP 1992-270684	19920828

AB A reducing agent is used for preventing oxidation of (immobilized) thio group-containing antigen or peptide. The (immobilized) thio group-containing antigen or peptide is used as a test reagent for antibody determination In a sep. experiment, **erythrocyte**-immobilized hepatitis C virus (**HCV**) antigen was treated with DTT, 2-mercaptoethanol, or glutathione and used for determining antibody to **HCV core antigen**, NS3, or NS4 protein, resp.

=> D L64 IBIB ABS

L64 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:161617 CAPLUS
DOCUMENT NUMBER: 120:161617
TITLE: Process for the determination of peptides corresponding to immunologically important epitopes and their use in a process for determination of antibodies, or biotinylated peptides corresponding to immunologically important epitopes, a process for preparing them and compositions containing them
INVENTOR(S): De Leys, Robert
PATENT ASSIGNEE(S): N.V. Innogenetics S.A., Belg.
SOURCE: PCT Int. Appl., 133 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9318054	A2	19930916	WO 1993-EP517	19930308
WO 9318054	A3	19940217		
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
EP 564746	A1	19931013	EP 1992-400598	19920306
R: BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CA 2102301	AA	19930907	CA 1993-2102301	19930308

AU 9337463	A1	19931005	AU 1993-37463	19930308
AU 671623	B2	19960905		
EP 589004	A1	19940330	EP 1993-906490	19930308
EP 589004	B1	19990506		
EP 589004	B2	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 06505806	T2	19940630	JP 1993-515334	19930308
JP 3443809	B2	20030908		
BR 9305435	A	19941227	BR 1993-5435	19930308
EP 891982	A2	19990120	EP 1998-202777	19930308
EP 891982	A3	20000412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 179716	E	19990515	AT 1993-906490	19930308
ES 2133392	T3	19990916	ES 1993-906490	19930308
US 5891640	A	19990406	US 1993-146028	19931122
US 6165730	A	20001226	US 1996-723425	19960930
US 6210903	B1	20010403	US 1998-112206	19980709
US 6667387	B1	20031223	US 2000-576824	20000523
US 6709828	B1	20040323	US 2000-680497	20001006
US 6649735	B1	20031118	US 2001-790497	20010223
JP 2004002379	A2	20040108	JP 2003-107716	20030411
US 2005049398	A1	20050303	US 2003-621675	20030718

PRIORITY APPLN. INFO.:

EP 1992-400598	A 19920306
EP 1993-906490	A3 19930308
JP 1993-515334	A3 19930308
WO 1993-EP517	A 19930308
US 1993-146028	A3 19931122
US 1996-723425	A3 19960930
US 1998-112206	A3 19980709
US 2000-576824	A3 20000523

AB Peptides corresponding to immunol. important epitopes (of bacterial or viral proteins) are determined by (1) preparing peptides corresponding to fragments of the protein of interest, (2) biotinylating the peptides, (3) binding the biotinylated peptides to a solid phase via interation with avidin or streptavidin, and (4) measuring antibodies which bind to the individual peptides. Processes for biotinylation of the peptides and for determination of antibodies to hepatitis C virus (**HCV**), to HIV, and to HTLV-I and -II are also disclosed. **HCV**, HIV, HTLV-I, and HTLV-II peptide sequences are included. Use of the biotinylated peptides in the process of the invention makes the anchorage of the peptides to a **solid support** such that it leaves their essential amino acids free to be recognized by antibodies. In studies determining binding of unbiotinylated peptides directly onto the wells of a polystyrene microtiter plate and binding of biotinylated peptides to wells coated with streptavidin, results demonstrated that antibody binding to the biotinylated peptide is superior to antibody binding to peptide coated directly onto the plastic.

=> D L63 IBIB ABS 1-6

L63 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:924104 CAPLUS
DOCUMENT NUMBER: 136:52716
TITLE: **HCV** antigen/antibody combination assay
INVENTOR(S): Chien, David Y.; Arcangel, Phillip; Tandeske, Laura; George-Nasciemento, Carlos; Coit, Doris; Medina-Selby, Angelica
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001096875	A2	20011220	WO 2001-US19369	20010614
WO 2001096875	A3	20030828		
WO 2001096875	C2	20020815		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2412035	AA	20011220	CA 2001-2412035	20010614
US 2002146685	A1	20021010	US 2001-881654	20010614
US 6632601	B2	20031014		
US 2002192639	A1	20021219	US 2001-881239	20010614
US 6630298	B2	20031007		
EP 1354204	A2	20031022	EP 2001-952160	20010614

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001011731	A	20040210	BR 2001-11731	20010614
JP 2004506878	T2	20040304	JP 2002-510953	20010614
NO 2002005878	A	20030212	NO 2002-5878	20021206
BG 107441	A	20040130	BG 2003-107441	20030107
US 2004063092	A1	20040401	US 2003-637323	20030808
US 6797809	B2	20040928		
US 2004096822	A1	20040520	US 2003-643853	20030819
US 2004265801	A1	20041230	US 2004-899715	20040726

PRIORITY APPLN. INFO.:

US 2000-212082P	P	20000615
US 2001-280811P	P	20010402
US 2001-280867P	P	20010402
US 2001-881239	A3	20010614
US 2001-881654	A3	20010614
WO 2001-US19369	W	20010614
US 2003-637323	A1	20030808

AB An **HCV core antigen** and NS3/4a antibody combination assay that can detect both **HCV** antigens and antibodies present in a sample using a single solid matrix, is provided, as well as immunoassay **solid supports** for use in the assay.

L63 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:620530 CAPLUS
DOCUMENT NUMBER: 131:240077
TITLE: Carrier and **solid support** for immunoassay
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu; Yokohama, Hiroaki; Mori, Shuji; Matsumori, Shigeru
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11264823	A2	19990928	JP 1998-372946	19981228

PRIORITY APPLN. INFO.:

JP 1997-368381	A	19971227

AB Carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins, e.g. IgG, in immunoassay of antigen or antibody. The silicon compound is dialkyl-polysiloxane (e.g. dimethylpolysiloxane), or a hydrophobic silane: alkyltrialkoxysilane, vinyltrialkoxysilane, or phenyltrialkoxysilane (e.g.

octadecyltriethoxysilane). A such porous carrier comprising glass fiber coated with dimethylpolysiloxane was prepared for immobilization of hepatitis C **core antigen** for immunodiagnosis of anti-**HCV** pos. sera.

L63 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:449181 CAPLUS
DOCUMENT NUMBER: 131:127390
TITLE: Immunoassay using glass fiber as **solid support**
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11194129	A2	19990721	JP 1997-368396	19971227

PRIORITY APPLN. INFO.: JP 1997-368396 19971227

AB Glass fiber is treated with water-soluble organic solvent and dried for use as **solid support** of immuno-reactive substance in immunoassay. The water-soluble organic solvent is selected from C1-4 fatty alcs. or fatty ketones, e.g. propanol or acetone. Thus, glass fiber membrane was treated with isopropanol, dried, and sensitized with hepatitis C virus **core antigen** for detecting anti-**HCV** core antibody in serum. Similarly, acetone-treated glass fiber membrane was sensitized with Treponema pallidum antigen for detecting TP-pos. serum.

L63 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:449180 CAPLUS
DOCUMENT NUMBER: 131:129038
TITLE: Immobilization of antigen or antibody on carrier or **solid support** for immunoassay
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11194128	A2	19990721	JP 1997-368018	19971227

PRIORITY APPLN. INFO.: JP 1997-368018 19971227

AB **Solid support** or carrier is treated with water-soluble organic solvent for immobilization of antigen or antibody. The water-soluble organic solvent is propanol, and the **solid support** is multi-well microplate of polystyrene. Thus, polystyrene microplate was treated with 2-propanol for immobilization of hepatitis C virus **core antigen** for detecting serum antibody specific for **HCV core antigen**.

L63 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
TW 562927	B	20031121	TW 1997-86105490	19970426
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221

PRIORITY APPLN. INFO.: JP 1996-112442 A 19960507
US 1997-850328 A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a **solid support** and used for detecting anti-hepatitis C virus antibody and for diagnosing **HCV** infection. The **HCV** antigen is **core antigen**, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L63 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:625871 CAPLUS
DOCUMENT NUMBER: 121:225871
TITLE: Immunoassay with **solid support** -immobilized and magnetic particle-immobilized same antigen
INVENTOR(S): Kaneko, Yasunobu
PATENT ASSIGNEE(S): Olympus Optical Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06186231	A2	19940708	JP 1992-341808	19921222

PRIORITY APPLN. INFO.: JP 1992-341808 19921222

AB The title method uses an immobilized antigen on the inner wall of a reaction chamber and an immobilized same antigen on a magnetic carrier particle (e.g. gelatin). Thus, for determination of anti-hepatitis C virus (**HCV**) antibody, **HCV core antigen** was immobilized on the well bottom of a plate and sep. on gelatin particle. Use of the magnetic particle-immobilized **HCV core antigen** exhibited higher sensitivity than with a magnetic particle-immobilized anti-human IgG antibody.

=> D L60 IBIB ABS 1-4

L60 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:498585 CAPLUS
DOCUMENT NUMBER: 131:167375
TITLE: Superoxide dismutase fusion protein-binding reagent as absorbent to remove nonspecific reaction in immunoassay
INVENTOR(S): Kawado, Katsuhito; Nakamura, Masato
PATENT ASSIGNEE(S): Fujirebio, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11218534	A2	19990810	JP 1998-32372	19980130
JP 3520757	B2	20040419		
PRIORITY APPLN. INFO.:			JP 1998-32372	19980130

OTHER SOURCE(S): MARPAT 131:167375

AB Aminocarboxylic acids, e.g. ε-aminocaproic acid, p-(aminomethyl)cyclohexanecarboxylic acid and lysine, are provided as absorbent for immunoassay to reduce nonspecific binding of superoxide dismutase-antigen fusion protein. Thus, fusion protein comprising superoxide dismutase and hepatitis C virus core antigen C200 protein was prepared by mol. cloning and coated on **gelatin particles** for immunoassay of anti-**HCV** antibody in serum sample in the presence of above mentioned aminocarboxylic acids.

L60 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:554170 CAPLUS
DOCUMENT NUMBER: 129:310488
TITLE: Plasma hydroxy metronidazole/metronidazole ratio in anti-**HCV** carriers with and without apparent liver disease
AUTHOR(S): Da Silva, C. M. F.; David, F. L.; Muscara, M. N.; Sousa, S. S.; Ferraz, J. G. P.; De Nucci, G.; Polimeno, N. C.; Pedrazzoli, J., Jr.
CORPORATE SOURCE: Clinical Pharmacology Unit, Sao Francisco University Medical School, Braganca Paulista, 218 12900-000, Brazil
SOURCE: British Journal of Clinical Pharmacology (1998), 46(2), 176-180
CODEN: BCPHBM; ISSN: 0306-5251
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Our objective was to evaluate plasma hydroxy-metronidazole/metronidazole ratio as a dynamic liver function test in **HCV**-infected individuals with/without liver disease, in the absence of liver cirrhosis. Metronidazole was administered i.v. in healthy volunteers, asymptomatic anti-**HCV**-pos. blood donors, and in chronic hepatitis C patients. Serol. to **HCV** was determined by a second generation assay and confirmed by **gelatin particle** agglutination test using recombinant antigens C22-3 and C200. Plasma concentration of metronidazole and hydroxy-metronidazole was measured by high performance liquid chromatog. in samples collected 5, 10, 20 and 30 min following the end of metronidazole infusion. Chronic hepatitis C patients had abnormal liver enzymes, while healthy volunteers and anti-**HCV**-pos. blood donors had normal liver biochem. tests. Plasma metronidazole concentration was similar in all groups studied. Plasma hydroxy-metronidazole/metronidazole ratio was significantly reduced in **HCV**-infected subjects, an effect observed 10 min after the end of drug infusion. Metronidazole clearance is impaired in anti-**HCV**-pos. blood donors and chronic hepatitis C patients, indicating that **HCV** is capable of affecting liver function at early stages of the disease. The metronidazole clearance test can detect impaired liver function in **HCV**-infected individuals even in the absence of liver cirrhosis.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:625871 CAPLUS
DOCUMENT NUMBER: 121:225871
TITLE: Immunoassay with solid support-immobilized and magnetic particle-immobilized same antigen
INVENTOR(S): Kaneko, Yasunobu

PATENT ASSIGNEE(S): Olympus Optical Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06186231	A2	19940708	JP 1992-341808	19921222

PRIORITY APPLN. INFO.: JP 1992-341808 19921222

AB The title method uses an immobilized antigen on the inner wall of a reaction chamber and an immobilized same antigen on a magnetic carrier particle (e.g. gelatin). Thus, for determination of anti-hepatitis C virus (**HCV**) antibody, **HCV** core antigen was immobilized on the well bottom of a plate and sep. on **gelatin particle**. Use of the magnetic particle-immobilized **HCV** core antigen exhibited higher sensitivity than with a magnetic particle-immobilized anti-human IgG antibody.

L60 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:21470 CAPLUS
DOCUMENT NUMBER: 116:21470
TITLE: Synthetic peptide and reagent for analysis of **HCV** (hepatitis C virus) antibodies using the same
INVENTOR(S): Hayashi, Nakanobu; Hashimoto, Masakatsu
PATENT ASSIGNEE(S): Shima Kenkyusho Y. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03190898	A2	19910820	JP 1989-329746	19891221

PRIORITY APPLN. INFO.: JP 1989-329746 19891221

AB A peptide having the common antigen determinant with **HCV** virus, i.e. H-Ile-Ile-Pro-Asp-Arg-Glu-Val-Leu-Tyr-Arg-Glu-Phe-Asp-Glu-Met-Glu-Glu-Cys-Ser-Gln-His-Leu-Pro-Tyr-Ile-Glu-Gln-Gly-Met-Met-Leu-Ala-Glu-Gln-Phe-Lys-Gln-Lys-Ala-Leu-Gly-Leu-OH (I), is prepared by the solid phase method on Fmoc- or BOC-Leu-bound resin (Fmoc = 9H-fluoren-9-ylmethoxycarbonyl, BOC = Me3CO2C) using Fmoc-protected amino acids. A reagent for analyzing **HCV** antibodies by the latex agglutination turbidimetry or light scattering photometry comprises (A), a solid reagent (i.e. I immobilized through phys. absorption or chemical through spacers on a solid support such as a microtiter reaction plate, beads, a sheet, a porous membrane, or magnetic latex, more preferably (high-d.) latex particles, immobilized erythrocyte, **gelatin particles**, or immobilized bacteria) and (B) human globulin antibodies (e.g. human IgG or anti-human IgM) labeled with a radioisotope, enzyme, biotin, fluorescent dye, or Eu chelate or (C) a similarly labeled I. I of high purity can be prepared in large quantity at lower cost than the conventional **HCV**-derived antigen and is easily immobilized on the support and the immobilized I shows good reaction with the **HCV** antibodies of **HCV** patients with high sensitivity and specificity.

=> D L61 IBIB ABS 1-19

L61 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:41450 CAPLUS
DOCUMENT NUMBER: 140:87668
TITLE: Therapeutic imidazole compounds, and human cellular

proteins casein kinase I α, δ, and ε as targets for medical intervention against hepatitis C virus infection

INVENTOR(S): Salassidis, Konstadinos; Kurtenbach, Alexander; Daub, Henrik; Obert, Sabine

PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany; Greff, Zoltan; Keri, Gyoergy; Oerfi, Laszlo; Waczek, Frigyes

SOURCE: PCT Int. Appl., 89 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005264	A2	20040115	WO 2003-EP7286	20030707
WO 2004005264	A3	20040304		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1532118	A2	20050525	EP 2003-762649	20030707
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: EP 2002-15096 A 20020705
WO 2003-EP7286 W 20030707

OTHER SOURCE(S): MARPAT 140:87668

AB The invention describes imidazole compds. which are particularly useful against Hepatitis C Virus infections and diseases associated therewith. Furthermore, the invention relates to the human cellular proteins casein kinase I α, δ, and ε as targets for medical intervention against Hepatitis C Virus (**HCV**) infections and diseases. In addition, the invention refers to a method for the identification of compds. which are useful for the prophylaxis and/or treatment of infections and diseases caused by Hepatitis C Virus, methods for treating Hepatitis C Virus infections and diseases, as well as pharmaceutical compns. useful for the prophylaxis and/or treatment of Hepatitis C Virus infections and diseases. Moreover, the invention discloses antibodies, oligonucleotides, and specific compds. which are effective for the detection, prophylaxis and/or treatment of infections and diseases caused by Hepatitis C Virus. In addition, the invention describes **solid supports** useful for the identification of compds. suitable for preventing and/or treating infections and diseases caused by Hepatitis C Virus.

L61 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:511528 CAPLUS

DOCUMENT NUMBER: 139:83444

TITLE: Identification of human cellular protein kinases, metalloproteases and phosphatases as targets for medical intervention against hepatitis C virus infections, and their use for drug screening and **HCV** infection diagnosis

INVENTOR(S): Salassidis, Konstadinos; Schubart, Daniel; Gutbrod, Heidrun; Mueller, Stefan; Kraetzer, Friedrich; Obert, Sabine

PATENT ASSIGNEE(S): Axxima Pharmaceuticals A.-G., Germany

SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003054228	A2	20030703	WO 2002-EP14578	20021219
WO 2003054228	A3	20040115		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005100887	A1	20050512	US 2004-872645	20040621
PRIORITY APPLN. INFO.:			US 2001-341757P	P 20011221
			WO 2002-EP14578	A2 20021219

AB The present invention relates to human cellular protein kinases, metalloproteases and one phosphatase: β-adrenergic receptor kinase 1 (NM_001619), mitogen activated protein kinase activated protein kinase 5 (AF032437), insulin-stimulated protein kinase 1 (U08316), discoidin domain receptor family member 1 (NM_013994), protein kinase C,μ (X75756), protein Kinase C,θ (L01087), AMP-activated protein kinase β2 subunit (AJ224538), JNK2 (U09759), human p21-activated protein kinase 2 (U24153), cyclin-dependent kinase 4 (U37022), MEK5 (U25265), MKP-L (NM_007026), ADAM22 (NM_016351), and ADAM17 (U92649) as potential targets for medical intervention against hepatitis C virus (**HCV**) infections. The present invention relates also to a method for the detection of compds. useful for prophylaxis and/or treatment of hepatitis C virus infections, a method for detecting hepatitis C virus infections in an individual or in cells. Mono- or polyclonal antibodies are disclosed effective for the treatment of **HCV** infections together with methods for treating Hepatitis C virus infections or for the regulation of Hepatitis C virus production and/or replication wherein said antibodies may be used. Finally the present invention relates to a **solid support** useful for detecting hepatitis C virus infections or for screening compds. useful for prophylaxis and/or treatment of **HCV** infections.

L61 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:373836 CAPLUS
DOCUMENT NUMBER: 138:381152
TITLE: Modified **HCV** core protein and diagnostic use for detection of anti-**HCV** antibodies
INVENTOR(S): Bahl, Chander
PATENT ASSIGNEE(S): Ortho-Clinical Diagnostics, Inc., USA
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1310512	A2	20030514	EP 2002-257656	20021105
EP 1310512	A3	20040121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2003152965	A1	20030814	US 2002-268569	20021010
BR 2002004599	A	20030916	BR 2002-4599	20021105
JP 2003279579	A2	20031002	JP 2002-321298	20021105
CA 2408174	AA	20030511	CA 2002-2408174	20021106

PRIORITY APPLN. INFO.: US 2001-347303P P 20011111
US 2002-268569P P 20021010
US 2002-268569 A 20021010

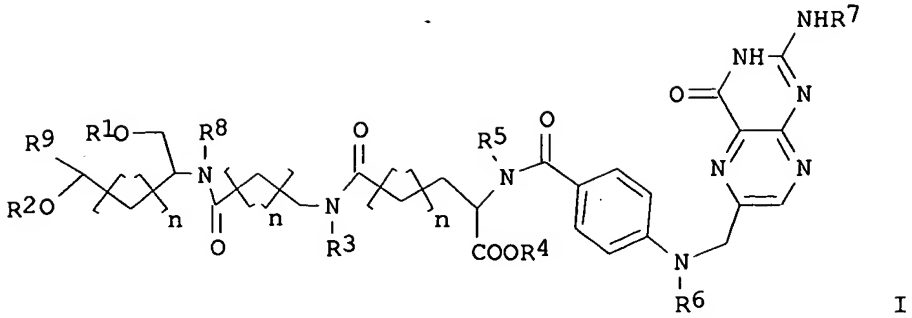
AB The present invention describes peptides and recombinant proteins containing Hepatitis C virus core protein sequence in which one or more of the amino acids have been modified or deleted to remove the ability of these proteins to bind to specific anti-**HCV** murine monoclonal antibodies. The deletions and modifications are designed as to maintain the ability of this protein to be used in immunoassays used for the detection of anti-**HCV** antibodies in individuals infected with **HCV**.

L61 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:905731 CAPLUS
DOCUMENT NUMBER: 138:14152
TITLE: Preparation of enzymic ribonucleic acid peptide conjugates as antitumor and antiviral agents and compositions for cellular delivery
INVENTOR(S): Beigelman, Leonid; Matulic-Adamic, Jasenka; Vargeese, Chandra; Karpeisky, Alexander; Blatt, Lawrence; Shaffer, Christopher
PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Inc, USA
SOURCE: PCT Int. Appl., 220 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 169
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094185	A2	20021128	WO 2002-US15876	20020520
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 9851819	A1	19980611	AU 1998-51819	19980112
AU 729657	B2	20010208		
AU 9939188	A1	19990916	AU 1999-39188	19990713
AU 769175	B2	20040115	AU 2000-56616	20000911
US 2003104985	A1	20030605	US 2002-151116	20020517
CA 2447161	AA	20021128	CA 2002-2447161	20020520
JP 2005505504	T2	20050224	JP 2002-590906	20020520
US 2003130186	A1	20030710	US 2002-201394	20020722
US 2004110296	A1	20040610	US 2003-427160	20030430
US 2004192626	A1	20040930	US 2003-444853	20030523
US 2005080031	A1	20050414	US 2003-724270	20031126
US 2005020525	A1	20050127	US 2004-757803	20040114
US 2004249178	A1	20041209	US 2004-780447	20040213
US 2005096284	A1	20050505	US 2004-783128	20040220
US 2005014172	A1	20050120	US 2004-798090	20040311
US 2005048529	A1	20050303	US 2004-800487	20040315
US 2005032733	A1	20050210	US 2004-826966	20040416
US 2005054598	A1	20050310	US 2004-830569	20040423
US 2005137153	A1	20050623	US 2004-840731	20040506
US 2005137155	A1	20050623	US 2004-861060	20040603
US 2005119211	A1	20050602	US 2004-869638	20040616
US 2005119212	A1	20050602	US 2004-871222	20040618
US 2005124566	A1	20050609	US 2004-879867	20040628
US 2005130181	A1	20050616	US 2004-881118	20040630
US 2005124567	A1	20050609	US 2004-883218	20040701

US 2005124568	A1	20050609	US 2004-888226		20040709
US 2005124569	A1	20050609	US 2004-892922		20040716
US 2005070497	A1	20050331	US 2004-894475		20040719
US 2005136436	A1	20050623	US 2004-923640		20040819
US 2005079610	A1	20050414	US 2004-923115		20040820
PRIORITY APPLN. INFO.:			US 2001-292217P	P	20010518
			US 2001-306883P	P	20010720
			US 2001-311865P	P	20010813
			US 2002-362016P	P	20020306
			AU 1995-26422	A3	19950518
			US 1996-623891	A	19960325
			AU 1996-76662	A3	19961025
			US 2001-294140P	P	20010529
			US 2001-296249P	P	20010606
			US 2001-306833P	P	20010720
			US 2001-318471P	P	20010910
			US 2002-358580P	P	20020220
			US 2002-363124P	P	20020311
			US 2002-374722P	P	20020422
			WO 2002-US15876	W	20020520
			US 2002-157580	A2	20020529
			WO 2002-US16840	A2	20020529
			US 2002-163552	A2	20020606
			US 2002-386782P	P	20020606
			US 2002-206705	A2	20020726
			US 2002-225023	A2	20020821
			US 2002-406784P	P	20020829
			US 2002-408378P	P	20020905
			US 2002-409293P	P	20020909
			US 2002-238700	A2	20020910
			US 2002-431105P	P	20021205
			US 2003-440129P	P	20030115
			WO 2003-US4123	A2	20030211
			WO 2003-US4397	A2	20030213
			WO 2003-US5028	A2	20030220
			WO 2003-US5162	A2	20030220
			WO 2003-US5190	A	20030220
			WO 2003-US5346	A2	20030220
			US 2003-417012	A1	20030416
			US 2003-420194	A2	20030422
			WO 2003-US12626	A2	20030422
			US 2003-422704	A2	20030424
			US 2003-427160	A2	20030430
			US 2003-444853	A2	20030523
			US 2003-486729P	P	20030711
			US 2003-652791	A2	20030829
			US 2003-693059	A2	20031023
			US 2003-698311	A2	20031031
			US 2003-720448	A2	20031124
			US 2003-727780	A2	20031203
			US 2004-757803	A2	20040114
			US 2004-543480P	P	20040210
			US 2004-780447	A2	20040213
			US 2004-825485	A2	20040415
			US 2004-826966	A2	20040416
			WO 2004-US13456	A2	20040430
			WO 2004-US16390	A2	20040524

GI



I

AB This invention features peptide nucleotide conjugates I wherein each R1-R8 are independently hydrogen, alkyl, substituted alkyl, aryl, substituted aryl, or a protecting group, each "n" is independently an integer from 0 to about 200, R9 is a straight or branched chain alkyl, substituted alkyl, aryl, or substituted aryl, and R2 is a phosphorus containing group, nucleoside, nucleotide, small mol., nucleic acid, or a **solid support** comprising a linker., degradable linkers, compns., methods of synthesis, and applications thereof, including folate, galactose, galactosamine, N-acetyl galactosamine, PEG, phospholipid, peptide and human serum albumin (HAS) derived conjugates of biol. active compds., including antibodies, antivirals, chemotherapeutics, peptides, proteins, hormones nucleosides, nucleotides, non-nucleosides, and nucleic acids including enzymic nucleic acids, DNAzymes, allozymes, antisense, dsRNA, siRNA, triplex oligonucleotides, 2,5-A chimeras, decoys and aptamers. Thus, 1-O-(4-monomethoxytrityl)-N-(12'-hydroxydodecanoyl-2-acetamido-3,4,6-tri-O-acetyl-2-deoxy-3-D-galactopyranose)-D-threoninol 3-O-(2-cyanoethyl,N,N-diisopropylphosphorami-dite) was prepared and incorporated into RNA. A method of treating a cancer patient, comprising contacting cells of patient wherein said cancer is breast cancer, lung cancer, colorectal cancer, brain cancer, esophageal cancer, stomach cancer, bladder cancer, pancreatic cancer, cervical cancer, head and neck cancer, ovarian cancer, melanoma, lymphoma, glioma, or multidrug resistant cancers and/or viral infections including HIV, HBV, **HCV**, CMV, RSV, HSV, poliovirus, influenza, rhinovirus, west nile virus, Ebola virus, foot and mouth virus, and papilloma.

L61 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:862872 CAPLUS
DOCUMENT NUMBER: 137:333986
TITLE: Biochip for genotyping 5'-noncoding region of hepatitis C virus genes
INVENTOR(S): Ye, Bangce
PATENT ASSIGNEE(S): Zhejiang Jiangnan Biological Science & Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1335410	A	20020213	CN 2000-122162	20000723

PRIORITY APPLN. INFO.: CN 2000-122162 20000723

AB The invention relates to DNA chip for genotyping hepatitis C virus (**HCV**). The invention relates to design of DNA probes based on 5'-noncoding region of **HCV** genes. The said probes is immobilized on **solid support** made of glass, silicon, macromol. compds. and membrane.

L61 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:924104 CAPLUS

DOCUMENT NUMBER: 136:52716
TITLE: **HCV** antigen/antibody combination assay
INVENTOR(S): Chien, David Y.; Arcangel, Phillip; Tandeske, Laura; George-Nasciemento, Carlos; Coit, Doris; Medina-Selby, Angelica
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 87 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096875	A2	20011220	WO 2001-US19369	20010614
WO 2001096875	A3	20030828		
WO 2001096875	C2	20020815		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2412035	AA	20011220	CA 2001-2412035	20010614
US 2002146685	A1	20021010	US 2001-881654	20010614
US 6632601	B2	20031014		
US 2002192639	A1	20021219	US 2001-881239	20010614
US 6630298	B2	20031007		
EP 1354204	A2	20031022	EP 2001-952160	20010614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001011731	A	20040210	BR 2001-11731	20010614
JP 2004506878	T2	20040304	JP 2002-510953	20010614
NO 2002005878	A	20030212	NO 2002-5878	20021206
BG 107441	A	20040130	BG 2003-107441	20030107
US 2004063092	A1	20040401	US 2003-637323	20030808
US 6797809	B2	20040928		
US 2004096822	A1	20040520	US 2003-643853	20030819
US 2004265801	A1	20041230	US 2004-899715	20040726

PRIORITY APPLN. INFO.:

US 2000-212082P	P	20000615
US 2001-280811P	P	20010402
US 2001-280867P	P	20010402
US 2001-881239	A3	20010614
US 2001-881654	A3	20010614
WO 2001-US19369	W	20010614
US 2003-637323	A1	20030808

AB An **HCV** core antigen and NS3/4a antibody combination assay that can detect both **HCV** antigens and antibodies present in a sample using a single solid matrix, is provided, as well as immunoassay **solid supports** for use in the assay.

L61 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:924100 CAPLUS
DOCUMENT NUMBER: 136:52715
TITLE: Immunoassays for anti-**HCV** antibodies
INVENTOR(S): Chien, David Y.; Arcangel, Phillip; Tandeske, Laura; George-Nasciemento, Carlos; Coit, Doris; Medina-Selby, Angelica
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096870	A2	20011220	WO 2001-US19156	20010614
WO 2001096870	A3	20030731		
W: AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2413003	AA	20011220	CA 2001-2413003	20010614
US 2002146685	A1	20021010	US 2001-881654	20010614
US 6632601	B2	20031014		
US 2002192639	A1	20021219	US 2001-881239	20010614
US 6630298	B2	20031007		
EP 1350105	A2	20031008	EP 2001-952156	20010614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
BR 2001011682	A	20040106	BR 2001-11682	20010614
JP 2004510133	T2	20040402	JP 2002-510948	20010614
US 2004063092	A1	20040401	US 2003-637323	20030808
US 6797809	B2	20040928		
US 2004096822	A1	20040520	US 2003-643853	20030819
US 2004265801	A1	20041230	US 2004-899715	20040726

PRIORITY APPLN. INFO.:		
US 2000-212082P	P	20000615
US 2001-280811P	P	20010402
US 2001-280867P	P	20010402
US 2001-881239	A3	20010614
US 2001-881654	A3	20010614
WO 2001-US19156	W	20010614
US 2003-637323	A1	20030808

AB **HCV** immunoassays comprising an NS3/4a conformational epitope and a multiple epitope fusion antigen are provided, as well as immunoassay **solid supports** for use with the immunoassays.

L61 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:380605 CAPLUS
DOCUMENT NUMBER: 135:15051
TITLE: Simultaneous detection of HBV, **HCV** and HIV in plasma samples using a multiplex capture assay by PCR and RT-PCR
INVENTOR(S): Ji, Jiuping; Manak, Mark; Wu, Kezuo; Chen, Xiuli; Yang, Lijuan
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001036442	A1	20010525	WO 2000-US31738	20001117
WO 2001036442	C2	20020725		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2392218	AA	20010525	CA 2000-2392218	20001117
EP 1233976	A1	20020828	EP 2000-980521	20001117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004072148	A1	20040415	US 2003-407897	20030407
PRIORITY APPLN. INFO.:			US 1999-165916P	P 19991117
			WO 2000-US31738	W 20001117

AB The present invention is directed to a capture assay to simultaneously screen for HBV, **HCV** and HIV nucleic acids in samples such as plasma. The nucleic acids including both viral DNA and RNA are purified from the plasma samples in a single extraction procedure. In one embodiment, a mixture of degenerate biotin-labeled PCR primers specific for the HBV, **HCV**, HIV-1 type M and HIV-1 type O are used to amplify any of these viruses which may be present in plasma. Amplified products are captured by hybridization to immobilized capture sequence, and thereafter detected. An internal control vector containing a synthetic fragment flanked by sequences corresponding to the HBV primers was designed to monitor sample recovery during extraction, amplification and detection. All major subtypes of HBV, **HCV** and HIV-1 including HIV-1 type O have been confirmed and detected by the assay.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:620530 CAPLUS
DOCUMENT NUMBER: 131:240077
TITLE: Carrier and **solid support** for immunoassay
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu; Yokohama, Hiroaki; Mori, Shuji; Matsumori, Shigeru
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11264823	A2	19990928	JP 1998-372946	19981228
PRIORITY APPLN. INFO.:			JP 1997-368381	A 19971227

AB Carrier compns. comprising silicon compound-coated glass fiber, quartz, or ceramic are used for reducing nonspecific binding with serum proteins, e.g. IgG, in immunoassay of antigen or antibody. The silicon compound is dialkyl-polysiloxane (e.g. dimethylpolysiloxane), or a hydrophobic silane: alkyltrialkoxysilane, vinyltrialkoxysilane, or phenyltrialkoxysilane (e.g. octadecyltriethoxysilane). A such porous carrier comprising glass fiber coated with dimethylpolysiloxane was prepared for immobilization of hepatitis C core antigen for immunodiagnosis of anti-**HCV** pos. sera.

L61 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:449181 CAPLUS
DOCUMENT NUMBER: 131:127390
TITLE: Immunoassay using glass fiber as **solid support**
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11194129	A2	19990721	JP 1997-368396	19971227

PRIORITY APPLN. INFO.: JP 1997-368396 19971227

AB Glass fiber is treated with water-soluble organic solvent and dried for use as **solid support** of immuno-reactive substance in immunoassay. The water-soluble organic solvent is selected from C1-4 fatty alcs. or fatty ketones, e.g. propanol or acetone. Thus, glass fiber membrane was treated with isopropanol, dried, and sensitized with hepatitis C virus core antigen for detecting anti-**HCV** core antibody in serum. Similarly, acetone-treated glass fiber membrane was sensitized with Treponema pallidum antigen for detecting TP-pos. serum.

L61 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:449180 CAPLUS
DOCUMENT NUMBER: 131:129038
TITLE: Immobilization of antigen or antibody on carrier or **solid support** for immunoassay
INVENTOR(S): Kumasawa, Toshiaki; Tagami, Hiroaki; Kitani, Yoshiyasu
PATENT ASSIGNEE(S): SRL K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11194128	A2	19990721	JP 1997-368018	19971227

PRIORITY APPLN. INFO.: JP 1997-368018 19971227

AB **Solid support** or carrier is treated with water-soluble organic solvent for immobilization of antigen or antibody. The water-soluble organic solvent is propanol, and the **solid support** is multi-well microplate of polystyrene. Thus, polystyrene microplate was treated with 2-propanol for immobilization of hepatitis C virus core antigen for detecting serum antibody specific for **HCV** core antigen.

L61 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:251284 CAPLUS
DOCUMENT NUMBER: 128:292153
TITLE: Protease regulator screening assay using a recombinant polypeptide comprising anchor, protease recognition, and signal regions
INVENTOR(S): Chien, David Y.; Selby, Mark J.
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9816657	A1	19980423	WO 1997-US18632	19971017

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,

GN, ML, MR, NE, SN, TD, TG

AU 9749043	A1	19980511	AU 1997-49043	19971017
US 6436666	B1	20020820	US 1997-997055	19971017
US 2003113825	A1	20030619	US 2002-225390	20020820
PRIORITY APPLN. INFO.:			US 1996-28817P	P 19961017
			US 1997-997055	A1 19971017
			WO 1997-US18632	W 19971017

AB A polypeptide containing an anchor region, a protease recognition site, and a detectable signal region can be produced recombinantly and directly attached to a **solid support**. The polypeptide is useful for screening protease regulators, especially protease inhibitors. Thus, a recombinant protein is produced in which the anchor region is protein A which specifically binds to an antibody, the protease recognition site is that for hepatitis C virus NS3 protease such as that for NS4A/NS4B or HS4B/NS5A cleavage, and the signal region comprises the epitope FLAG sequence. A fragment encoding **HCV** NS5 peptide protease target site is inserted in frame into the polylinker region of pEZZ18 so that it is connected at the C-terminal region of protein A. The NS5 peptide protease target site includes the NS5A and NS5B cleavage site, i.e., amino acids 2420 and 2421, 7 amino acids at the N-terminal side of the cleavage site, and 8 amino acids at the C-terminal side of the cleavage site. Another sequence fragment encoding the FLAG tag is inserted in frame at the C-terminal end of the NS5 protease target site. The sequence fragment encodes three FLAG tags alternately spaced with two 4-glycine spacers. The assay is readily adapted to an automated format and is suitable for large scale drug screens, as demonstrated by screening for potentially therapeutically useful inhibitors of the **HCV** protease.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L61 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
TW 562927	B	20031121	TW 1997-86105490	19970426
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221
PRIORITY APPLN. INFO.:			JP 1996-112442	A 19960507
			US 1997-850328	A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a **solid support** and used for detecting anti-hepatitis C virus antibody and for diagnosing **HCV** infection. The **HCV** antigen is core antigen, NS3 antigen, NS4 antigen, or NS5 antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L61 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:159031 CAPLUS
TITLE: Chemical synthesis of branched oligodeoxyribonucleotides. Design and synthesis of

branching monomer and characterization of oligomers for use as amplifiers in nucleic acid quantification assays.
AUTHOR(S): Horn, Thomas; Chang, Chu-An; Urdea, Mickey S.
CORPORATE SOURCE: Chiron Diagnostics, Nucleic Acids Systems, Emeryville, CA, 94608, USA
SOURCE: Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), CARB-097. American Chemical Society: Washington, D. C.
CODEN: 64AOAA
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB We describe the selection of an optimal chemical for the synthesis of branching monomers to be used in the synthesis of bDNA comb structures. This new type of branched DNA contains one unique oligonucleotide, the primary sequence, covalently attached to many identical copies of a different oligonucleotide, the secondary sequence. The bDNA comb structures were assembled on a **solid support**, and several synthesis parameters were investigated to optimize the quality and yield of product. The bDNA comb mols. were characterized by PAGE and HPCE methods, and by controlled cleavage at periodate-cleavable moieties incorporated during synthesis. The bDNA comb oligomers have been elaborated by enzymic or chemical ligation into large bDNA mols. with 45 repeated DNA oligomer sequences, each capable of hybridizing specifically to an alkaline phosphatase labeled oligonucleotide. They were used as signal amplifiers in nucleic acid quantitation assays for the detection of HIV and **HCV**.

L61 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:625871 CAPLUS
DOCUMENT NUMBER: 121:225871
TITLE: Immunoassay with **solid support** -immobilized and magnetic particle-immobilized same antigen
INVENTOR(S): Kaneko, Yasunobu
PATENT ASSIGNEE(S): Olympus Optical Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06186231	A2	19940708	JP 1992-341808	19921222
PRIORITY APPLN. INFO.:			JP 1992-341808	19921222

AB The title method uses an immobilized antigen on the inner wall of a reaction chamber and an immobilized same antigen on a magnetic carrier particle (e.g. gelatin). Thus, for determination of anti-hepatitis C virus (**HCV**) antibody, **HCV** core antigen was immobilized on the well bottom of a plate and sep. on gelatin particle. Use of the magnetic particle-immobilized **HCV** core antigen exhibited higher sensitivity than with a magnetic particle-immobilized anti-human IgG antibody.

L61 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:433163 CAPLUS
DOCUMENT NUMBER: 121:33163
TITLE: Monoclonal antibodies to putative **HCV** E2/NS1 proteins and methods for using same
INVENTOR(S): Mehta, Smriti U.; Johnson, Jill E.; Dailey, Stephen H.; Desai, Suresh M.; Devare, Sushil G.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: U.S., 21 pp. Cont.-in-part of U.S. Ser. No. 610,180, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5308750	A	19940503	US 1991-748292	19910821
CA 2032907	AA	19910623	CA 1990-2032907	19901221
CA 2032907	C	20020514		
AU 9068390	A1	19910627	AU 1990-68390	19901221
AU 638304	B2	19930624		
AT 128237	E	19951015	AT 1990-125354	19901222
ES 2080099	T3	19960201	ES 1990-125354	19901222
JP 04253998	A2	19920909	JP 1990-418240	19901225
JP 3188717	B2	20010716		
WO 9304205	A1	19930304	WO 1992-US7189	19920821
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9225850	A1	19930316	AU 1992-25850	19920821
EP 603307	A1	19940629	EP 1992-920089	19920821
EP 603307	B1	19991013		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
JP 06510192	T2	19941117	JP 1992-504659	19920821
AT 185606	E	19991015	AT 1992-920089	19920821
ES 2139607	T3	20000216	ES 1992-920089	19920821
JP 3335351	B2	20021015	JP 1993-504659	19920821
US 6596476	B1	20030722	US 1997-905054	19970801

PRIORITY APPLN. INFO.:

US 1989-456162	B2	19891222
US 1990-610180	B2	19901107
US 1991-748292	A	19910821
US 1991-760292	B1	19910916
WO 1992-US7189	A	19920821
US 1994-183207	B1	19940118
US 1995-373920	B1	19950117
US 1995-507740	B1	19950726
US 1996-707355	B1	19960904

AB Disclosed are monoclonal antibodies which specifically bind to Hepatitis C Virus (**HCV**) E2/NS1 antigen. Also provided are hybridoma cell lines which secrete these monoclonal antibodies, methods for using these monoclonal antibodies, and assay kits for assays which contain these monoclonal antibodies.

L61 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:161617 CAPLUS
DOCUMENT NUMBER: 120:161617
TITLE: Process for the determination of peptides corresponding to immunologically important epitopes and their use in a process for determination of antibodies, or biotinylated peptides corresponding to immunologically important epitopes, a process for preparing them and compositions containing them
INVENTOR(S): De Leys, Robert
PATENT ASSIGNEE(S): N.V. Innogenetics S.A., Belg.
SOURCE: PCT Int. Appl., 133 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9318054	A2	19930916	WO 1993-EP517	19930308
WO 9318054	A3	19940217		
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SK, UA, US				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG					
EP 564746	A1	19931013	EP 1992-400598		19920306
R: BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
CA 2102301	AA	19930907	CA 1993-2102301		19930308
AU 9337463	A1	19931005	AU 1993-37463		19930308
AU 671623	B2	19960905			
EP 589004	A1	19940330	EP 1993-906490		19930308
EP 589004	B1	19990506			
EP 589004	B2	20040506			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 06505806	T2	19940630	JP 1993-515334		19930308
JP 3443809	B2	20030908			
BR 9305435	A	19941227	BR 1993-5435		19930308
EP 891982	A2	19990120	EP 1998-202777		19930308
EP 891982	A3	20000412			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
AT 179716	E	19990515	AT 1993-906490		19930308
ES 2133392	T3	19990916	ES 1993-906490		19930308
US 5891640	A	19990406	US 1993-146028		19931122
US 6165730	A	20001226	US 1996-723425		19960930
US 6210903	B1	20010403	US 1998-112206		19980709
US 6667387	B1	20031223	US 2000-576824		20000523
US 6709828	B1	20040323	US 2000-680497		20001006
US 6649735	B1	20031118	US 2001-790497		20010223
JP 2004002379	A2	20040108	JP 2003-107716		20030411
US 2005049398	A1	20050303	US 2003-621675		20030718
PRIORITY APPLN. INFO.:			EP 1992-400598	A	19920306
			EP 1993-906490	A3	19930308
			JP 1993-515334	A3	19930308
			WO 1993-EP517	A	19930308
			US 1993-146028	A3	19931122
			US 1996-723425	A3	19960930
			US 1998-112206	A3	19980709
			US 2000-576824	A3	20000523

AB Peptides corresponding to immunol. important epitopes (of bacterial or viral proteins) are determined by (1) preparing peptides corresponding to fragments of the protein of interest, (2) biotinylating the peptides, (3) binding the biotinylated peptides to a solid phase via interation with avidin or streptavidin, and (4) measuring antibodies which bind to the individual peptides. Processes for biotinylation of the peptides and for determination of antibodies to hepatitis C virus (**HCV**), to HIV, and to HTLV-I and -II are also disclosed. **HCV**, HIV, HTLV-I, and HTLV-II peptide sequences are included. Use of the biotinylated peptides in the process of the invention makes the anchorage of the peptides to a **solid support** such that it leaves their essential amino acids free to be recognized by antibodies. In studies determining binding of unbiotinylated peptides directly onto the wells of a polystyrene microtiter plate and binding of biotinylated peptides to wells coated with streptavidin, results demonstrated that antibody binding to the biotinylated peptide is superior to antibody binding to peptide coated directly onto the plastic.

L61 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1993:142986 CAPLUS
DOCUMENT NUMBER:	118:142986
TITLE:	Methods and compositions for simultaneous analysis of multiple analytes, especially with flow cytometry
INVENTOR(S):	Lehnen, Brian C.; Crothers, Stephan D.
PATENT ASSIGNEE(S):	Transmed Biotech Inc., USA
SOURCE:	PCT Int. Appl., 70 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9302360	A1	19930204	WO 1992-US5799	19920710
W: AU, CA, JP, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
CA 2113350	AA	19930204	CA 1992-2113350	19920710
CA 2113350	C	19990323		
AU 9223480	A1	19930223	AU 1992-23480	19920710
EP 594763	A1	19940504	EP 1992-916006	19920710
EP 594763	B1	19980923		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06509417	T2	19941020	JP 1993-502870	19920710
AT 171543	E	19981015	AT 1992-916006	19920710
US 5567627	A	19961022	US 1993-149129	19931105
PRIORITY APPLN. INFO.:			US 1991-731039 A2	19910716
			WO 1992-US5799 A	19920710

AB A method is disclosed for detection of multiple analytes in a sample employing a complementary binding moiety to each of the analytes bound to a **solid support**, wherein each analyte and its complementary binding moiety comprise 1st and 2nd members of a specific binding pair. The method includes (1) forming a mixture of known proportions of multiple subpopulations of the complementary binding moieties, in which each subpopulation comprises a different complementary binding moiety; (2) contacting the sample with the mixture so that specific binding pairs are formed on the **solid supports**; and (3) relating the presence of analytes in the sample to the formation of specific binding pairs associated with each unique proportion of multiple subpopulations by comparing the area of the peak in the fluorescence histogram to the total area of peaks in the histogram. The method can be performed with **solid supports** of a single average size and a single fluorochrome and without the need for using other detection systems. Reagents of microspheres coated with either human immunodeficiency virus (HIV) gp41 or with goat anti-human IgG were prepared Reagents containing exclusively either or both of these coated microspheres were blended proportionately so that gp41-coated microspheres comprised 100, 89, 79, 68, 58, 48,38,28,19,9, and 0% of the total number of microspheres in the reagent and anti-IgG antibody-coated microspheres comprised 0, 11, 21, 32, 42, 52, 62, 72, 81, 91, and 100%, resp. Each of the 11 proportional reagents was incubated with human serum known to be pos. for both IgG and anti-gp41 antibodies; after washing, a 2nd reagent, containing FITC-labeled anti-human IgG antibodies, was added and the the mixture incubated, washed, and analyzed with a flow cytometer. The data were analyzed and output as a histogram; 1 or 2 histogram peaks was observed, depending on whether the reagent contained 1 or 2 types of microspheres,resp. Magnitudes of peak areas varied in a manner predicted by the proportionality of microspheres in the reagents. In other expts. it was shown that histogram area is independent of fluorescence intensity, that the summed area of overlapping peaks is determined by the proportionality of the reagent microspheres whose fluorescence contributes to the combined peak in the histogram, and that the area of a histogram peak arising from nonspecific binding (i.e., a neg.) is determined by the proportionality of the resp. microspheres in the reagent. A four-analyte serum assay using microspheres coated with IgG antibodies, HIV gp41, HIV p24, and hepatitis B core protein is also described, as are methods of data anal. for the method of the invention.

L61 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	1992:21470 CAPLUS
DOCUMENT NUMBER:	116:21470
TITLE:	Synthetic peptide and reagent for analysis of **HCV** (hepatitis C virus) antibodies using the same
INVENTOR(S):	Hayashi, Nakanobu; Hashimoto, Masakatsu
PATENT ASSIGNEE(S):	Shima Kenkyusho Y. K., Japan
SOURCE:	Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF
DOCUMENT TYPE:	Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03190898	A2	19910820	JP 1989-329746	19891221

PRIORITY APPLN. INFO.: JP 1989-329746 19891221

AB A peptide having the common antigen determinant with **HCV** virus, i.e. H-Ile-Ile-Pro-Asp-Arg-Glu-Val-Leu-Tyr-Arg-Glu-Phe-Asp-Glu-Met-Glu-Glu-Cys-Ser-Gln-His-Leu-Pro-Tyr-Ile-Glu-Gln-Gly-Met-Met-Leu-Ala-Glu-Gln-Phe-Lys-Gln-Lys-Ala-Leu-Gly-Leu-OH (I), is prepared by the solid phase method on Fmoc- or BOC-Leu-bound resin (Fmoc = 9H-fluoren-9-ylmethoxycarbonyl, BOC = Me3CO2C) using Fmoc-protected amino acids. A reagent for analyzing **HCV** antibodies by the latex agglutination turbidimetry or light scattering photometry comprises (A), a solid reagent (i.e. I immobilized through phys. absorption or chemical through spacers on a **solid support** such as a microtiter reaction plate, beads, a sheet, a porous membrane, or magnetic latex, more preferably (high-d.) latex particles, immobilized erythrocyte, gelatin particles, or immobilized bacteria) and (B) human globulin antibodies (e.g. human IgG or anti-human IgM) labeled with a radioisotope, enzyme, biotin, fluorescent dye, or Eu chelate or (C) a similarly labeled I. I of high purity can be prepared in large quantity at lower cost than the conventional **HCV**-derived antigen and is easily immobilized on the support and the immobilized I shows good reaction with the **HCV** antibodies of **HCV** patients with high sensitivity and specificity.

=> NS3 and NS4 and L59
2088 NS3
576 NS4
L67 2 NS3 AND NS4 AND L59

=> D L67 IBIB ABS 1-2

L67 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:905910 CAPLUS
DOCUMENT NUMBER: 141:378844
TITLE: Inducing a T cell response with recombinant antigen-expressing pestivirus replicons or recombinant pestivirus replicon-transfected dendritic cells, and therapeutic uses
INVENTOR(S): Rehermann, Barbara; Racanelli, Vito; Behrens, Sven-Erik; Tautz, Norbert
PATENT ASSIGNEE(S): The Government of the United States of America as Represented by the Secretary of Health and Human Services, USA; Justus-Liebig-Universitaet Giessen
SOURCE: PCT Int. Appl., 143 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092386	A2	20041028	WO 2004-US11018	20040410
WO 2004092386	A3	20050512		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-462165P P 20030411
US 2003-463097P P 20030414

AB The present disclosure relates to compds. and methods of generating T cell-mediated immunity, particularly T cell-mediated immunity to Hepatitis C Virus (**HCV**), Respiratory Syncytial Virus (RSV), Human Immunodeficiency Virus (HIV), Mycobacterium tuberculosis, Plasmodium falciparum, and tumors. The method includes (a) administering to the subject an amount of an antigen presenting cell (such as dendritic cell) sufficient to induce the response in the subject, wherein the antigen presenting cell expresses the recombinant antigen from a pestivirus replicon or (b) directly administering the recombinant antigen expressing replicon in form of RNA or DNA.

L67 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:293595 CAPLUS
DOCUMENT NUMBER: 120:293595
TITLE: Thio group-containing antigen or peptide treated with reducing agent for antibody determination
INVENTOR(S): Takei, Toshinori; Inoe, Juzo; Asahina, Aki; Tokita, Susumu
PATENT ASSIGNEE(S): Dainabot Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06074956	A2	19940318	JP 1992-270684	19920828
JP 3225468	B2	20011105		

PRIORITY APPLN. INFO.: JP 1992-270684 19920828

AB A reducing agent is used for preventing oxidation of (immobilized) thio group-containing antigen or peptide. The (immobilized) thio group-containing antigen or peptide is used as a test reagent for antibody determination In a sep. experiment, **erythrocyte**-immobilized hepatitis C virus (**HCV**) antigen was treated with DTT, 2-mercaptoethanol, or glutathione and used for determining antibody to **HCV** core antigen, **NS3**, or **NS4** protein, resp.

=> NS# and NS4 and L56
80831 NS#
576 NS4
L68 7 NS# AND NS4 AND L56

=> D L68 IBIB ABS 1-7

L68 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:509788 CAPLUS
DOCUMENT NUMBER: 139:67449
TITLE: Comparative study of peptide antigens and polymer surface interactions. The influence on sensitivity and specificity in serodiagnosis of **HCV** and HIV
AUTHOR(S): Burov, Sergey; Leko, Maria; Glinskaya, Oxana; Shkarubskaya, Zoya; Kharina, Maria; Dorosh, Marina; Lisok, Tamara; Mobarhan, Asadi
CORPORATE SOURCE: Institute of Macromolecular Compounds, Academy of Sciences, St.-Petersburg, Russia
SOURCE: Peptides 2000, Proceedings of the European Peptide Symposium, 26th, Montpellier, France, Sept. 10-15, 2000 (2001), Meeting Date 2000, 865-866. Editor(s): Martinez, Jean; Fehrentz, Jean-Alain. Editions EDK:

Paris, Fr.
CODEN: 69EDWK; ISBN: 2-84254-048-4
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The determination of specific antibodies against distinct antigenic proteins of a given pathogen is the most commonly used diagnostic tool for the detection of viral infections. Although a large number of the established test systems still use natural antigens from different sources, synthetic peptides, representing the specific antigenic determinants possess the significant advantages. However, the interaction of peptides with the polymer surface may have appreciable influence on the efficiency of their application in ELISA test systems. Apart from induced conformational changes there are significant difference in attachment of polypeptides to the solid phase and possible competition for the correspondent binding sites. Thus, quant. control of the antigenic determinants adsorption process may represent a useful tool for the enhancement of ELISA diagnostic system sensitivity.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:509457 CAPLUS
DOCUMENT NUMBER: 140:218010
TITLE: Synthesis of **HCV** and HIV B-cell epitopes using **polystyrene** supports with new cross-linking agent
AUTHOR(S): Burov, Sergey; Menshikova, Anastasia; Evseeva, Tatiana; Shabsels, Boris; Leko, Maria; Pavlotzkaya, Anna
CORPORATE SOURCE: Institute of Macromolecular Compounds, Academy of Sciences, St. Petersburg, Russia
SOURCE: Peptides 2000, Proceedings of the European Peptide Symposium, 26th, Montpellier, France, Sept. 10-15, 2000 (2001), Meeting Date 2000, 201-202. Editor(s): Martinez, Jean; Fehrentz, Jean-Alain. Editions EDK: Paris, Fr.
CODEN: 69EDWK; ISBN: 2-84254-048-4
DOCUMENT TYPE: Conference
LANGUAGE: English
AB A symposium report. Suspension copolymn. of styrene with bis-vinylphenyl ether (BVPE) was used to obtain polymer beads with an average size of 150-300 mesh which were used in solid-phase peptide synthesis of **HCV** **NS4** antigenic determinant in reasonable yield without double coupling synthetic protocol. Results showed that the resins based on **polystyrene** crosslinked by BVPE may produce at least equal results in the synthesis of peptides with difficult sequences as standard **polystyrene**-divinylbenzene resins.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:569089 CAPLUS
DOCUMENT NUMBER: 133:282074
TITLE: Syntheses of four peptides from the immunodominant region of hepatitis C viral pathogens using PS-TTEGDA support for the investigation of **HCV** infection in human blood
AUTHOR(S): Kumar, K. S.; Pillai, V. N. Rajasekharan; Das, M. R.
CORPORATE SOURCE: Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, 695 014, India
SOURCE: Journal of Peptide Research (2000), 56(2), 88-96
CODEN: JPERFA; ISSN: 1397-002X
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 133:282074
AB Four peptides were designed and synthesized on a highly solvating

copolymer of tetraethyleneglycol diacrylate cross-linked **polystyrene** (PS-TTEGDA) support with very high purity and yield. The polymer was synthesized in various crosslinking densities (1, 2, 3, 4, 5 and 10%) using radical aqueous suspension polymerization Four per cent PS-TTEGDA resin showed rigidity and mech. characteristics comparable with those of divinylbenzene cross-linked **polystyrene** (PS-DVB) support. Swelling and solvation characteristics of PS-TTEGDA were much higher than PS-DVB support in all solvents used in solid-phase peptide synthesis. Forty-eight hour treatment of the support with neat trifluoroacetic acid did not show any change in its IR spectra. PS-TTEGDA could be functionalized with chloromethyl, aminomethyl and hydroxymethyl functional groups under various controlled conditions. Synthetic utility of the support was demonstrated by the synthesis of four peptides selected from the envelope and nonstructural protein region of the prototype hepatitis C virus (**HCV**). These peptides were later used successfully to develop a peptide-based immunoassay (PBEIA) for the detection of **HCV** immunity. Peptides designed from the **NS1** and **NS4** protein regions were found to be very promising for the development of a new diagnostic kit to detect **HCV** infection in human blood. Peptide purity was tested by RP-FPLC and the peptide identity was confirmed by amino acid anal.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L68 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
TW 562927	B	20031121	TW 1997-86105490	19970426
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221
PRIORITY APPLN. INFO.:			JP 1996-112442 A	19960507
			US 1997-850328 A1	19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a solid support and used for detecting anti-hepatitis C virus antibody and for diagnosing **HCV** infection. The **HCV** antigen is core antigen, **NS3** antigen, **NS4** antigen, or **NS5** antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

L68 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:208363 CAPLUS
DOCUMENT NUMBER: 126:290298
TITLE: Evaluation of "COBAS CORE anti-**HCV**-EIA" for the detection of antibodies to **HCV** by COBAS CORE
AUTHOR(S): Murata, Shogo; Morishita, Noriko; Ueno, Tadashi; Seki, Tomoyuki; Fukui, Atsuyo
CORPORATE SOURCE: Center Adult Diseases, Wakayama Doctors Assocn. Hosp., Japan

SOURCE: Igaku to Yakugaku (1997), 37(1), 111-116
CODEN: IGYAEI; ISSN: 0389-3898
PUBLISHER: Shizen Kagakusha
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB COBAS CORE anti-**HCV**-EIA is a third generation immunoassay system comprises an automated apparatus with 5 different **polystyrene** bead-immobilized recombinant hepatitis C virus antigens, such as core antigen c680 region, KN3 and KN4-1 regions of **NS**-3 and **NS**-4 of type 1a strain, and NS3b and NS5a regions of **NS3** and **NS5** of of genome type 1b strain, and enzyme-labeled mouse anti-human IgG monoclonal antibody. The method and system is very useful for determination of hepatitis C virus antibody in blood serum of patients.

L68 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:161617 CAPLUS
DOCUMENT NUMBER: 120:161617
TITLE: Process for the determination of peptides corresponding to immunologically important epitopes and their use in a process for determination of antibodies, or biotinylated peptides corresponding to immunologically important epitopes, a process for preparing them and compositions containing them
INVENTOR(S): De Leys, Robert
PATENT ASSIGNEE(S): N.V. Innogenetics S.A., Belg.
SOURCE: PCT Int. Appl., 133 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9318054	A2	19930916	WO 1993-EP517	19930308
WO 9318054	A3	19940217		
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, PT, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
EP 564746	A1	19931013	EP 1992-400598	19920306
R: BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CA 2102301	AA	19930907	CA 1993-2102301	19930308
AU 9337463	A1	19931005	AU 1993-37463	19930308
AU 671623	B2	19960905		
EP 589004	A1	19940330	EP 1993-906490	19930308
EP 589004	B1	19990506		
EP 589004	B2	20040506		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 06505806	T2	19940630	JP 1993-515334	19930308
JP 3443809	B2	20030908		
BR 9305435	A	19941227	BR 1993-5435	19930308
EP 891982	A2	19990120	EP 1998-202777	19930308
EP 891982	A3	20000412		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 179716	E	19990515	AT 1993-906490	19930308
ES 2133392	T3	19990916	ES 1993-906490	19930308
US 5891640	A	19990406	US 1993-146028	19931122
US 6165730	A	20001226	US 1996-723425	19960930
US 6210903	B1	20010403	US 1998-112206	19980709
US 6667387	B1	20031223	US 2000-576824	20000523
US 6709828	B1	20040323	US 2000-680497	20001006
US 6649735	B1	20031118	US 2001-790497	20010223
JP 2004002379	A2	20040108	JP 2003-107716	20030411
US 2005049398	A1	20050303	US 2003-621675	20030718

PRIORITY APPLN. INFO.: EP 1992-400598 A 19920306
EP 1993-906490 A3 19930308

JP 1993-515334	A3	19930308
WO 1993-EP517	A	19930308
US 1993-146028	A3	19931122
US 1996-723425	A3	19960930
US 1998-112206	A3	19980709
US 2000-576824	A3	20000523

AB Peptides corresponding to immunol. important epitopes (of bacterial or viral proteins) are determined by (1) preparing peptides corresponding to fragments of the protein of interest, (2) biotinylating the peptides, (3) binding the biotinylated peptides to a solid phase via interation with avidin or streptavidin, and (4) measuring antibodies which bind to the individual peptides. Processes for biotinylation of the peptides and for determination of antibodies to hepatitis C virus (**HCV**), to HIV, and to HTLV-I and -II are also disclosed. **HCV**, HIV, HTLV-I, and HTLV-II peptide sequences are included. Use of the biotinylated peptides in the process of the invention makes the anchorage of the peptides to a solid support such that it leaves their essential amino acids free to be recognized by antibodies. In studies determining binding of unbiotinylated peptides directly onto the wells of a **polystyrene** microtiter plate and binding of biotinylated peptides to wells coated with streptavidin, results demonstrated that antibody binding to the biotinylated peptide is superior to antibody binding to peptide coated directly onto the plastic.

L68 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1993:251060 CAPLUS
DOCUMENT NUMBER: 118:251060
TITLE: Hepatitis C assay utilizing recombinant antigens to **NS1**
INVENTOR(S): Dailey, Stephen H.; Desai, Suresh M.; Devare, Sushil G.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 176 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9304088	A1	19930304	WO 1992-US7188	19920821
W: AU, CA, JP, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9225135	A1	19930316	AU 1992-25135	19920821
EP 600009	A1	19940608	EP 1992-918853	19920821
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
JP 06510191	T2	19941117	JP 1992-504658	19920821
US 6172189	B1	20010109	US 1997-867611	19970602
US 6593083	B1	20030715	US 2000-690359	20001017

PRIORITY APPLN. INFO.: US 1991-748561	A	19910821
US 1990-572822	YY	19900824
US 1990-614069	B2	19901107
US 1991-748565	A2	19910821
US 1991-748566	B2	19910821
WO 1992-US7188	A	19920821
US 1992-989843	B1	19921119
US 1994-179896	B1	19940110
US 1996-646757	B1	19960501
US 1997-867611	A3	19970602

AB Unique recombinant antigens are provided which represent 5 distinct antigenic regions of the **NS1** region of the hepatitis C virus (**HCV**) genome and can be used as reagents for the detection of antibodies and antigen in body fluids from individuals exposed to **HCV**. Synthetic DNA sequences which encode the proteins are optimized for expression in Escherichia coli by specific codon selection, and the proteins are expressed as chimeric fusion proteins with E. coli

CTP:CMP-3-deoxy-manno-octulosonate cytidylyltransferase (I). An assay is provided for detecting the presence of an antibody to an **HCV** antigen in a sample by contacting the sample with the recombinant antigens; preferred assay formats include a screening assay, a confirmatory assay, a competition or neutralization assay, and an immunodot assay. Thus, **polystyrene** beads were coated with 2 recombinant antigens: (1) a protein comprising 239 amino acids of I, amino acids 1192-1457 of the **HCV NS3** region, amino acids 1676-1931 of the **HCV NS4** region, and 10 amino acids contributed by 3 linker DNA sequences; (2) a protein comprising 239 amino acids of I, the 1st 150 amino acids encoded by the **HCV** genome, and 7 amino acids contributed by 1 linker DNA sequence. In a screening assay for antibodies in human plasma, these beads were incubated with sample, washed, incubated with goat anti-human IgG-peroxidase conjugate, washed, and incubated with o-phenylenediamine (chromogen) and H2O2.

```
=> NS3 and NS4 and NS5 and core  and L48
          2088 NS3
           576 NS4
           846 NS5
        283322 CORE
         61623 CORES
        313638 CORE
                  (CORE OR CORES)
L69          97 NS3 AND NS4 AND NS5 AND CORE  AND L48

=> solid and L69
        966755 SOLID
        274057 SOLIDS
       1169197 SOLID
                  (SOLID OR SOLIDS)
L70           5 SOLID AND L69

=> D L70 IBIB ABS 1-5

L70  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:633152  CAPLUS
DOCUMENT NUMBER:          141:156083
TITLE:                    Simultaneous detection of HCV antigen and
                          anti-HCV antibodies in combination assay or
                          sole antibody assay
INVENTOR(S):              Shah, Dinesh O.; Cheng, Yu; Stewart, James L.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 15 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     US 2004152070         A1    20040805    US 2003-357816          20030204
     WO 2004070387         A1    20040819    WO 2004-US3076          20040203
         W:  AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG,
             BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,
             CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES,
             ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN,
             IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC,
             LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX,
             MZ, MZ, NA, NI
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
             BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
             MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
             GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN,
             GQ, GW, ML, MR, NE, SN, TD, TG
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PRIORITY APPLN. INFO.: US 2003-357816 A 20030204

AB The subject invention relates to methods for the simultaneous detection of Hepatitis C Virus (**HCV**) antigens as well as antibodies produced in response to **HCV** antigens. Such methods may be carried out in the presence of a diluent comprising a reductant or lacking a reductant. Furthermore, the performance of such methods may be maximized by altering such variables as the nature of the antigen coated on the **solid** phase, temperature application and time. The **HCV** antigens are **core** antigen, **NS3**, **NS4**, **NS5** and fragments. The method comprises formation of antigen-antibody complexes, addition of chemiluminescent compound-labeled antibody to bind the antigen-antibody complexes, and measuring the chemiluminescent signal.

L70 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:633162 CAPLUS
DOCUMENT NUMBER: 139:178676
TITLE: Methods for the simultaneous detection of **hcv** antigens and **hcv** antibodies
INVENTOR(S): Shah, Dinesh O.; Dawson, George J.; Muerhoff, A. Scott; Jiang, Lily; Gutierrez, Robin A.; Leary, Thomas P.; Desai, Suresh; Stewart, James L.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S. Ser. No. 891,983.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003152948	A1	20030814	US 2002-173480	20020617
US 6727092	B2	20040427		
US 2003108858	A1	20030612	US 2001-891983	20010626
CA 2450710	AA	20030109	CA 2002-2450710	20020624
WO 2003002749	A2	20030109	WO 2002-US19958	20020624
WO 2003002749	A3	20030710		
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1412538	A2	20040428	EP 2002-746647	20020624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2005518186	T2	20050623	JP 2003-509110	20020624
US 2004185436	A1	20040923	US 2004-753910	20040107
US 6855809	B2	20050215		

PRIORITY APPLN. INFO.:
US 2001-891983 A2 20010626
US 2002-173480 A 20020617
WO 2002-US19958 W 20020624

AB The subject invention relates to methods for the simultaneous detection of Hepatitis C Virus (**HCV**) antigens as well as antibodies produced in response to **HCV** antigens. Furthermore, the subject invention allows one to detect antigens in the early, acute stage of infection, even prior to the development of antibodies, thereby allowing for early detection of infected blood and blood products, thus improving the safety of the blood supply. The method allows the detection of the antigen or the antibody, or both, in a single assay. Antigens are detected with immobilized antibodies and antibodies are detected with immobilized antigens. After incubating the immobilized agents with a test sample, they are then incubated with labeled antibodies. Bound antigen is detected with an antibody to the antigen. Bound antibody is detected with a mouse monoclonal antibody to a human antibody, typically IgG.

L70 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:23040 CAPLUS
DOCUMENT NUMBER: 138:88633

TITLE: Methods for the simultaneous detection of **HCV** antigens and **HCV** antibodies
INVENTOR(S): Shah, Dinesh O.; Dawson, George A.; Muerhoff, A. Scott; Jiang, Lily; Gutierrez, Robin A.; Leary, Thomas P.; Desai, Suresh; Stewart, James L.
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003002749	A2	20030109	WO 2002-US19958	20020624
WO 2003002749	A3	20030710		
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2003108858	A1	20030612	US 2001-891983	20010626
US 2003152948	A1	20030814	US 2002-173480	20020617
US 6727092	B2	20040427		
CA 2450710	AA	20030109	CA 2002-2450710	20020624
EP 1412538	A2	20040428	EP 2002-746647	20020624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2005518186	T2	20050623	JP 2003-509110	20020624

PRIORITY APPLN. INFO.:
US 2001-891983 A 20010626
US 2002-173480 A 20020617
WO 2002-US19958 W 20020624

AB The subject invention relates to methods for the simultaneous detection of Hepatitis C Virus (**HCV**) antigens as well as antibodies produced in response to **HCV** antigens. Furthermore, the subject invention allows one to detect antigens in the early, acute stage of infection, even prior to the development of antibodies, thereby allowing for early detection of infected blood and blood products, thus improving the safety of the blood supply.

L70 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:298250 CAPLUS
DOCUMENT NUMBER: 131:127333
TITLE: Use of a novel hepatitis C virus (**HCV**) major-epitope chimeric polypeptide for diagnosis of **HCV** infection
AUTHOR(S): Chien, David Y.; Arcangel, Phillip; Medina-Selby, Angelica; Coit, Doris; Baumeister, Mark; Nguyen, Steve; George-Nascimento, Carlos; Gyenes, Alexander; Kuo, George; Valenzuela, Pablo
CORPORATE SOURCE: Chiron Corporation, Emeryville, CA, 94507, USA
SOURCE: Journal of Clinical Microbiology (1999), 37(5), 1393-1397
CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The genome of hepatitis C virus (**HCV**) consists of seven functional regions: the **core**, E1, E2/NS1, NS2, **NS3**, **NS4**, and **NS5** regions. The U.S. Food and Drug Administration-licensed 2.0G immunoassay for the detection of anti-**HCV** uses proteins from the **core**, **NS3**, and **NS4** regions. The 3.0G ELISA includes the protein from the **NS5** region. The necessity of detecting antibodies to viral envelope proteins (E1 and E2) and to different genotype samples has been demonstrated previously. In this study we have attempted to improve the sensitivity of the anti-**HCV** assay by developing a single multiple-epitope fusion antigen (MEFA; MEFA-6) which incorporates all of

the major immunodominant epitopes from the seven functional regions of the **HCV** genome. A nucleic acid sequence consisting of proteins from the viral **core**, E1, E2, **NS3**, **NS4**, and **NS5** regions and different subtype-specific regions of the **NS4** region was constructed, cloned, and expressed in yeast. The epitopes present on this antigen can be detected by epitope-specific monoclonal and polyclonal antibodies. In a competition assay, the MEFA-6 protein competed with 83 to 96% of genotype-specific antibodies from **HCV** genotype-specific peptides. This recombinant antigen was subsequently used to design an anti-**HCV** chemiluminescent immunoassay. We designed our assay using a monoclonal anti-human IgG antibody bound to the **solid** phase. Because MEFA-6 is fused with human superoxide dismutase (h-SOD), we used an anti-human superoxide dismutase, di-Me acridinium ester-labeled monoclonal antibody for detection. Our results indicate that MEFA-6 exposes all of the major immunogenic epitopes. Its excellent sensitivity and specificity for the detection of clin. seroconversion are demonstrated by this assay.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L70 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:743751 CAPLUS
DOCUMENT NUMBER: 128:47287
TITLE: C type hepatitis virus disease diagnostic agent
INVENTOR(S): Takahama, Yoichi; Shiraishi, Junichi
PATENT ASSIGNEE(S): Toa Medical Electronics Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297141	A2	19971118	JP 1996-112442	19960507
TW 562927	B	20031121	TW 1997-86105490	19970426
US 6379886	B1	20020430	US 1997-850328	19970502
EP 806669	A2	19971112	EP 1997-107368	19970505
EP 806669	A3	19971126		
EP 806669	B1	20020410		
R: BE, DE, FR, GB, IT				
CN 1170875	A	19980121	CN 1997-109798	19970506
US 2002081630	A1	20020627	US 2001-28172	20011221

PRIORITY APPLN. INFO.: JP 1996-112442 A 19960507
US 1997-850328 A1 19970502

AB Hepatitis C virus antigen or carrier protein conjugate is coated on a **solid** support and used for detecting anti-hepatitis C virus antibody and for diagnosing **HCV** infection. The **HCV** antigen is **core** antigen, **NS3** antigen, **NS4** antigen, or **NS5** antigen, and the carrier protein is bovine serum albumin, egg white albumin or hemocyanin.

```
=> HCV
L1       29714 HCV

=> hemagglutination
L2       22293 HEMAGGLUTINATION

=> L1 and L2
L3          39 L1 AND L2

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ENTER REMOVE, IDENTIFY, ONLY, OR (?):L3
'L9' IS NOT VALID HERE
Enter "REMOVE" to identify and remove duplicate answers.
Enter "IDENTIFY" to identify duplicate answers in the answer set.
Enter "ONLY" to identify and create an answer set containing only
duplicate records.
ENTER REMOVE, IDENTIFY, ONLY, OR (?):duplicate
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Enter "REMOVE" to identify and remove duplicate answers.
Enter "IDENTIFY" to identify duplicate answers in the answer set.
Enter "ONLY" to identify and create an answer set containing only
duplicate records.
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'L9' IS NOT VALID HERE
Enter "REMOVE" to identify and remove duplicate answers.
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Enter "ONLY" to identify and create an answer set containing only
duplicate records.
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PROCESSING COMPLETED FOR L3
L4             8 DUPLICATE ONLY L3

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L39 NOT FOUND
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of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> L3 and 3rd generation
L5             0 L3 AND 3RD GENERATION

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L3 ANSWER 29 OF 39 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:555675 BIOSIS
DOCUMENT NUMBER: PREV199698569975
TITLE: Intrafamilial transmission of hepatitis C virus among the population of an endemic area of Japan.
AUTHOR(S): Nakashima, Koya [Reprint author]; Ikematsu, Hideyuki; Hayashi, Jun; Kishihara, Yasuhiro; Mitsutake, Arahito; Kashiwagi, Seizaburo
CORPORATE SOURCE: Dep. Gen. Med., Kyushu Univ. Hosp., 71 Higashi-ku, Fukuoka 812, Japan
SOURCE: JAMA (Journal of the American Medical Association), (1995) Vol. 274, No. 18, pp. 1459-1461.
CODEN: JAMAAP. ISSN: 0098-7484.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 31 Dec 1995
Last Updated on STN: 31 Dec 1995

AB Objectives: To assess the role of intrafamilial transmission of hepatitis C virus (**HCV**) among general populations. Design and Setting: Cross-sectional study in an **HCV**-endemic area of Japan. Participants: A total of 1122 residents (mean age, 41.7 years; range, 0 to 80 years), including 359 mother-child pairs and 234 pairs of spouses. Main Outcome Measures: Antibody to **HCV** (anti-**HCV**) was examined using second-generation anti-**HCV** testing by passive **hemagglutination** assay. Hepatitis C virus RNA was detected by polymerase chain reaction with primers deduced from the 5'-noncoding region and **HCV** genotypes by reaction with type-specific primers deduced from the **HCV** core gene. Results: Prevalence of anti-**HCV** was 14.1% (158/1122), and HCV RNA was detected in 82.9% of those who tested positive for anti-**HCV**. Prevalence of Conclusions: While **HCV** is highly endemic in this area, neither vertical nor horizontal transmission between spouses seems to play an important role in its spread. The incidence of intrafamilial transmission of **HCV** seems to be low.

L3 ANSWER 30 OF 39 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:494961 BIOSIS
DOCUMENT NUMBER: PREV199598518511
TITLE: The virological and Histological States of Anti-Hepatitis C Virus-Positive Subjects With Normal Liver Biochemical Values.
AUTHOR(S): Shindo, Michiko [Reprint author]; Arai, Ken; Sokawa, Yoshihiro; Okuno, Tadao
CORPORATE SOURCE: Akashi Municipal Hosp., 1-33 Takashomachi, Akashi, Hyogo 673, Japan
SOURCE: Hepatology, (1995) Vol. 22, No. 2, pp. 418-425.
CODEN: HPTLD9. ISSN: 0270-9139.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Nov 1995
Last Updated on STN: 29 Nov 1995

AB We investigated anti-hepatitis C virus (**HCV**) titers, **HCV** RNA levels in liver and serum, genetic variability in the hypervariable region of the genome, the form of the virus in the circulation, and liver histology in 21 anti-**HCV**-positive subjects with sustained normal liver biochemical values. Titer of anti-**HCV** was determined by second generation anti-**HCV**-passive **hemagglutination** assay, and **HCV** RNA levels were semiquantitated by reverse transcriptase polymerase chain reaction (PCR). In 19 (90%) of the 21 subjects who had a higher titer of anti-**HCV** (gtoreq 2-14), **HCV** RNA was detected in both serum and liver, and histological examination showed minimal or mild chronic hepatitis in all. In the remaining 2 patients who had a lower titer of anti-**HCV**, **HCV** RNA was not detected in serum and liver, and liver histology was normal. Anti-**HCV** titers and HCV RNA levels in serum and liver in the 19 **HCV** RNA-positive subjects were compared with those levels in the 41 patients with biopsy-proven chronic

hepatitis C and elevated serum aminotransferase levels as a control group. There were no significant differences in viral levels in serum and liver between the two groups. To further investigate virological differences between the two groups with regard to degree of genetic variability and the form in the circulation, we performed the PCR-single strand conformation polymorphism (PCR-SSCP) of the hypervariable region 1 and the immunoprecipitation analyses. PCR-SSCP showed that the anti-HCV -positive subjects with normal liver biochemical values had quasispecies nature of the HCV genome similar to the patients with chronic hepatitis C, and the immunoprecipitation analysis showed that the virus circulated both in immune complexes and in the free form in both groups. These findings indicated that both groups had similar virological characteristics but showed different patterns of serum aminotransferase levels and histological findings, suggesting that the two groups may have different immune responses to the virus.

L3 ANSWER 31 OF 39 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1995:411046 BIOSIS
DOCUMENT NUMBER: PREV199598425346
TITLE: High proportion of false positive reactions among donors with anti-**HCV** antibodies in a low prevalence area.
AUTHOR(S): Sakugawa, Hiroshi [Reprint author]; Nakasone, Hiroki; Nakayoshi, Tomofumi; Kinjo, Fukunori; Saito, Atsushi; Yakabi, Shizuko; Zukeran, Hiroki; Miyagi, Yasuhiro; Taira, Reiko; Koja, Keishun; Uezu, Tomio; Kina, Morio; Omine, Keisho
CORPORATE SOURCE: First Dep. Internal Med., Univ. Hosp. Fac. Med., University Ryukyus, 207 Uehara, Nishihara-cho, Okinawa, Japan
SOURCE: Journal of Medical Virology, (1995) Vol. 46, No. 4, pp. 334-338.
CODEN: JMVIDB. ISSN: 0146-6615.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 27 Sep 1995
Last Updated on STN: 27 Sep 1995

AB Among 39,656 voluntary blood donors in Okinawa Prefecture, Japan, 115 (0.29%) were repeatedly reactive for antibody to hepatitis C virus (anti-**HCV**) by second generation (2nd-gen) passive **hemagglutination** assay (PHA). Positive serum samples were tested for anti-**HCV** using three different enzyme immunosorbent assays (ELISAs; Abbott 2nd EIA, UBI-**HCV**-EIA, JCC-2) and for **HCV** -RNA by the polymerase chain reaction (PCR). The 115 2nd-gen PHA-positive sera were divided into three groups according to the agglutination titers; gt 2-10 (high titer group), 2-7-2-9 (median), 2-5-2-6 (low). All but one serum (44/45) in the high PHA titer group reacted in each of the three second screening ELISAs. Furthermore, 43 (97.7%) of the 44 sera contained **HCV**-RNA by PCR. In the median titer group, 11 of the 13 samples tested were positive by each of the three ELSIAs, and 4 (36.4%) of the 11 showed reaction by PCR. On the other hand, all of the 38 sera tested in the low titer group were negative for **HCV**-RNA by PCR, and 24 of the 38 were also negative by each of the three ELISAs. Most of the low titer positive reactions in the 2nd-gen agglutination assay seemed to be false positive. In Okinawa Prefecture, the prevalence of anti-**HCV** among blood donors is much lower than in the rest of Japan (0.29% vs. 1.11%). Moreover, a significant proportion of these sera were low titer by the PHA assay. The difference in the genuine anti-**HCV** -positive rate, or the prevalence of **HCV** carriage between Okinawa Prefecture and the rest of Japan may therefore be even greater than is presently assumed.

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AB We have defined 10 linear immunogenic regions encoded by the putative hepatitis C virus (**HCV**) structural proteins (core and envelope) by employing an enzyme-linked immunosorbent assay (ELISA) and by using 17 sequential synthetic peptides covering the N-terminal 330 amino acids of the structural polyproteins as antigens. These peptides correspond to amino acids 1 to 24, 21 to 44, 42 to 68, 64 to 91, and 100 to 120 of the putative core protein and amino acids 192 to 212, 223 to 238, 236 to 258, 250 to 266, and 307 to 330 of the putative envelope protein. In particular, the peptide covering amino acids 21 to 44 of the core protein was reactive with all but one (40 of 41) of the serum samples giving a positive signal in the passive **hemagglutination** assay (PHA) using the core and nonstructural proteins (NS 3/4) of the virus as antigens. We detected the **HCV** genome in 25 (61%) of 41 PHA-positive serum samples by the polymerase chain reaction (PCR) test. Of 25 PCR-positive serum samples, 17 serum samples had reactivity to the peptides derived from the envelope protein. On the other hand, only 1 of the 16 PCR-negative serum samples had reactivity to the peptides derived from the envelope protein. Interestingly, we often observed high serum alanine aminotransferase levels in PCR-positive individuals bearing antibodies to the envelope protein.